DOCUMENT RESUME

ED 461 750 CE 082 885

AUTHOR Brugia, Mara; Gerard, Francoise; Tetart, Michel; Battezzati, Luciano; Mallet, Jeanne; Pellerey, Michele; Walker, Simon

TITLE Open and Distance Learning and the Professionalisation of Trainers. TTnet Dossier No. 4. CEDEFOP Reference.

INSTITUTION European Centre for the Development of Vocational Training, Thessaloniki (Greece).

REPORT NO TI-38-01-407-EN-C

ISBN ISBN-92-896-0055-1

ISSN ISSN-1608-7089

PUB DATE 2001-00-00

NOTE 80p.; Papers presented at the Training of Trainers Network Workshop (Rome, Italy, November 18-19, 1999). For TTnet Dossiers No. 1 and No. 2, see ED 445 197 and ED 445 202.

AVAILABLE FROM Bernan Associates, 4611-F Assembly Drive, Lanham, MD 20706-4391 (Publication No. 3017 EN, 8.50 euro, $10). Tel: 800-274-4447 (Toll Free); e-mail: query@bernan.com; Web site: http://www.bernan.com.

PUB TYPE Collected Works - General (020) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC04 Plus Postage.

DESCRIPTORS Adult Learning; Computer Uses in Education; Delivery Systems; *Distance Education; Educational Change; Educational Demand; Educational Needs; Educational Supply; *Educational Technology; Educational Television; Educational Trends; Foreign Countries; Futures (of Society); Internet; Mentors; Multimedia Instruction; Needs Assessment; Online Systems; *Open Education; Postsecondary Education; *Professional Development; Skill Development; Teacher Competencies; Teacher Education; Teacher Qualifications; Teaching Skills; Technological Advancement; *Trainers; Training Methods; Trend Analysis; *Vocational Education

IDENTIFIERS Europe; Impact Studies; Professionalization; Video Teleconferencing

ABSTRACT

This document contains five papers from a 1999 workshop in Rome on enhancing the professional skills and qualifications of trainers in open and distance learning organized by the TTnet network (Training of Trainers network). "The Different Types of Open and Distance Training and Their Impact on Trainers' Skills" (Michel Tetart) examines the following topics: the principles and realities of open and distance learning today; assisted self-training; and requirements related to professionalization. "Open and Distance Learning and the Professionalization of Trainers: Types of Distance Learning and Impact on Trainers' Skills" (Luciano Battezzati) reviews prospects and trends in the demand for training, proposes an initial classification of technologies, and examines the applications of various educational technologies. "Changes to the Roles and Competences of In-Company Trainers within Training Systems Using Multimedia: Future Prospects Based on the Practice of Two High-Tech Companies" (Jeanne Mallet) explores how new educational technologies have changed the functions of trainers and simultaneously facilitated the professionalization of trainers. "Distance Learning Schemes for Trainers: Features of Teaching and Education" (Michele

Reproductions supplied by EDRS are the best that can be made from the original document.

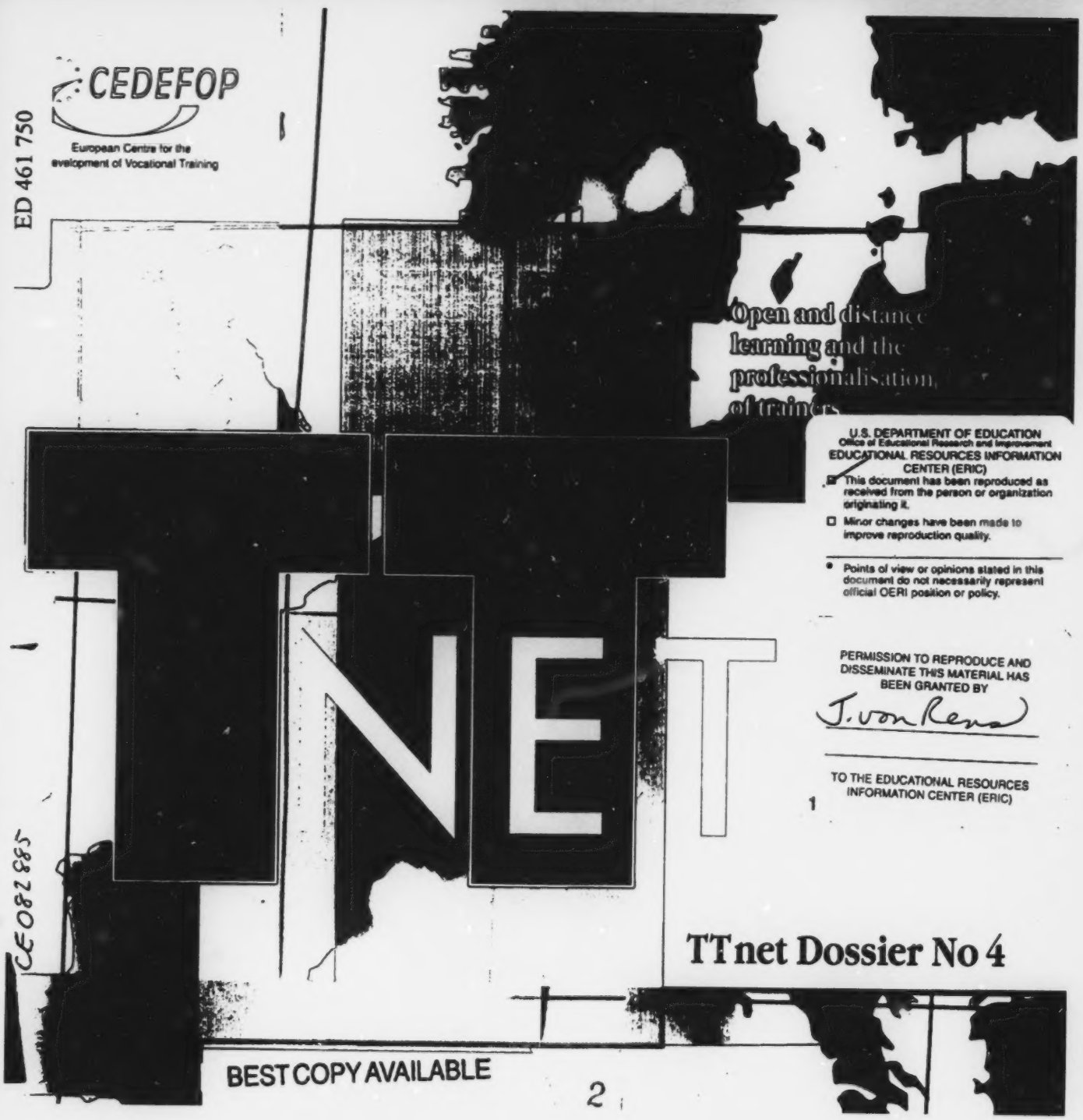
Pellerey) discusses the mission of training programs and selection of training models. "Mentor in Cyberspace: Developing Interactive On-Line Training and Support" (Simon Walker) reports on a study of the effectiveness of using interactive multimedia to supplement the training of mentors in the vocational education and training sector. Two papers contain substantial bibliographies. (MN)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 461 750

CEDEFOP

European Centre for the
evelopment of Vocational Training



Open and distance learning and the professionalisation of trainers

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

J. von Rens

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

CE 082 885

TTnet Dossier No 4

BEST COPY AVAILABLE

TTnet Dossier No 4

Open and distance learning and the professionalisation of trainers

Cedefop Reference series

Luxembourg: Office for Official Publications of the European Communities, 2001

A great deal of additional information on the European Union is available on the Internet.
It can be accessed through the Europa server (http://europa.eu.int).

Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 2001

ISBN 92-896-0055-1

© European Centre for the Development of Vocational Training, 2001

Reproduction is authorised provided the source is acknowledged.

Designed by Colibri Ltd, Greece
Printed in Italy

PRINTED ON WHITE CHLORINE-FREE PAPER

The **European Centre for the Development of Vocational Training** (Cedefop) established in 1975, provides information and analyses of vocational education and training systems, policies and research.

Europe 123
GR-570 01 Thessaloniki (Pylea)

Postal address:
PO Box 22427
GR-551 02 Thessaloniki

Tel. (30) 310 490 111
Fax (30) 310 490 020
E-mail: info@cedefop.eu.int
Home page: www.cedefop.eu.int
Interactive web site: www.trainingvillage.gr

Authors:
Mara Brugia, *Cedefop*
Françoise Gérard *(Centre INFFO), France*
Michel Tétart *(IOTA+), France*
Luciano Battezzati *(ISVOR-Fiat), Italy*
Jeanne Mallet *(University of Provence 1), France*
Michele Pellerey *(Università Salesiana di Roma), Italy*
Simon Walker *(University of Greenwich), United Kingdom*

Edited by:
Cedefop
Mara Brugia, Project Coordinator

Published under the responsibility of:
Johan van Rens, *Director*
Stavros Stavrou, *Deputy Director*

Contents

Preface 4

Review of the issue 7

Mara BRUGIA, Françoise GÉRARD

1. Introduction 7
2. Open and distance learning schemes and their impact on the training process 8
   - 2.1. Definition of open and distance learning schemes 8
   - 2.2. A new way of thinking introduced by data processing 9
   - 2.3. The emergence of informal training practices 10
   - 2.4. Customisation of the learning process 10
   - 2.5. An economic approach for a necessarily cooperative process 11
3. A reconfiguration of trainers' roles and profiles 12
   - 3.1. New families of occupations in companies 12
   - 3.2. From the dissemination of knowledge to mediation functions 12
   - 3.3. Resistance from and identity crisis of trainers 13
4. Horizontal competences for trainers 14
   - 4.1. The heart of an occupation: pedagogical expertise and the structuring of training 14
   - 4.2. Specific competences linked to new technologies 14

4.3. 'Horizontal' competences 15
5. Training and the professionalisation of trainers in the Community context 16
5.1. The added value of ICTs in the training of trainers 16
5.2. Other professionalisation strategies 17
6. Conclusions: some Community perspectives 17

Contributions

The different types of open and distance training and their impact on trainers' skills 20
Michel TÉTART
1. Open and distance training: the principles and realities of today 20
1.1. Inventory of the different forms of open and distance learning 21
2. The APPs 22
2.1. Assisted self-training (new educational technology) 24
2.2. The role of new communications technologies 25
2.3. The new role of the APP trainer 26
2.4. Pragmatic needs 27
3. Requirements related to professionalisation 29
3.1. Support for those involved 30
3.2. Autofod (learning to use technology and to organise open and distance learning) 31
3.3. Interviews 32
4. Conclusion 33
5. Web site addresses 34
Annex. APP: a network of *ateliers de pédagogie personnalisée* 35

Open and distance learning and the professionalisation of trainers: types of distance learning and impact on trainers' skills 37
Luciano BATTEZZATI
1. Prospects and trends in the demand for training 37
2. An initial classification of technologies 38
3. Experience and practical applications: videoconferencing, business television, on-line services, learning centre 40
4. Working processes, skills and new occupational profiles 41
5. Questions to be answered 43

Changes to the roles and competences of in-company trainers within training systems using multimedia: future prospects based on the practice of two high-tech companies
Jeanne MALLET
1. Introduction 44
2. The 'Training platform' operations at France Télécom and on-line training 46

2.1. The aim of the platform operations and their implementation 46
2.2. Distance training platforms (commercial and technical) 46
2.3. Putting it all in perspective 47
3. Knowledge management in Thomson Rousset's electronic components branch 49
4. Conclusion 50
5. Bibliography 51
Annex: Skills required of trainers involved in the implementation of on-line training in companies. 53

Distance learning schemes for trainers: features of teaching and education 54
Michele PELLEREY
1. Introduction 54
2. The mission of the training programme 55
3. Choosing a learning model 56
4. System arrangements 58
5. Process arrangements 59
6. Product arrangements 59
7. Conclusion 60

Mentor in cyberspace: developing interactive on-line training and support 61
Simon WALKER
1. Introduction 61
2. General information 62
3. Rationale for the research 63
4. Findings 64
5. Project objectives and scope 64
6. Framework for the design 65
7. Conclusion 69
8. Bibliography 70

Preface

Studying the professionalisation of teachers and trainers in the context of training schemes that use ICTs is not merely a question of identifying competences from various aspects: new abilities, the changing roles and profiles of trainers, the reconstitution of occupational groups, etc.; the subject must also be approached from the angle of forms of training in the broadest sense, including individual strategies and changes in professional identity as parameters of the professionalisation of teachers and trainers.

The professionalisation of teachers and trainers must therefore be examined from the wider perspective of keeping pace with change.

The TTnet network (Training of Trainers network) is conscious that the use of new technologies in training raises major issues for trainers and has therefore organised a number of activities since the beginning of the year 2000 on the various aspects of the matter. One of those activities, the thematic workshop on 'open and distance learning and enhancing the professional skills and qualifications of trainers' brought together experts and practitioners from the various Member States to consider a two-fold question:

(a) How does the use of educational technologies in training radically change the trainer's role through

the new tasks they create and the new competences they generate?

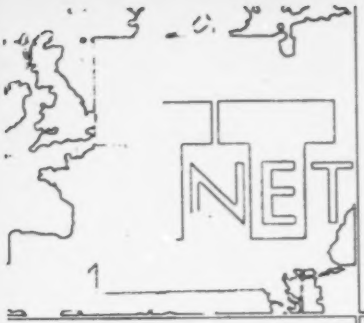
(b) How does the use of educational technologies for the training of trainers contribute to the emergence of a new model for the professionalisation of trainers?

Dossier No 4 presents the results of the workshop by bringing together a number of thematic contributions designed to place the question in context from several different angles: the typologies of training using ICTs and their impact on trainers' competences; the key questions for trainers in the Community context leading to common work priorities.

The outcome of those discussions should be considered as the starting point for the more in-depth work on the same theme that will be conducted by the TTnet network during 2001–02 in a collaborative effort with the Commission as part of the *e*Learning initiative.

Mara Brugia
Project Coordinator

Stavros Stavrou
Deputy Director


NET
1

1

Review of the issue

Introduction

The Rome workshop, 'Open and distance learning and enhancing the professional skills and qualifications of trainers', was one of the thematic workshops that have been organised by TTnet since June 1998.

After examining factors in the development of the training function and innovation as a transferable practice, studying the development of the tutoring function, the Rome workshop was entirely devoted to examining issues relating to open and distance learning schemes in relation to the professionalisation of trainers.

The workshop brought together experts and practitioners to consider a dual question:

(a) how does the use of educational technologies in training radically change the functions of trainers (through the new tasks that they create for trainers and the new competences they generate)?

(b) How does the use of new educational technologies for the training of trainers facilitate the development of those new competences? In other words, does the use of educational technologies for training trainers contribute to the emergence of a new model for the professionalisation of trainers,

and if so, under what conditions and within what limits?

The workshop was organised as a series of thematic contributions intended to place the question in context from several different angles:

(a) the typologies of open and distance learning and their impact on trainers' competences;
(b) the specificities of training design and pedagogical methodology incorporating information and communication technologies;
(c) key questions for trainers in the Community context leading to common work priorities and cooperation proposals.

We will not go into the workshop in detail here but rather limit ourselves to four main themes:

(a) open and distance learning schemes and their impact on the training process;
(b) a reconfiguration of the roles and profiles of trainers;
(c) 'horizontal' competences for trainers;
(d) training and the professionalisation of the trainers.

Open and distance learning schemes and their impact on the training process

2.1. Definition of open and distance learning schemes

The growing number of technical options available has led to fresh training responses to the needs of individuals and organisations, which are themselves developing rapidly. Those new responses go hand-in-hand with the changes already highlighted at previous workshops held by the network: integration of training into the work situation, customisation of training courses, changing work organisation and production methods, etc.

The introduction by Michel Tétart (coordinator of the network for workshops on customised education — APP, France) illustrated the variety of open and distance training methods:

(a) correspondence courses, which are the oldest form;
(b) courses broadcast by radio or television;
(c) teletraining tools (videoconferences, CD-ROM);
(d) tools based on real and virtual resource centres;

(e) on-line intranet and Internet self-training schemes;
(f) virtual campuses.

Luciano Battezzati (head of the New Media unit of Isvor-Fiat in Italy) presented an analysis of distance training schemes, distinguishing the various technologies according to methods of managing the learning process and the nature of the communication process between the various partners:

(a) telelearning, when the face-to-face relationship between the trainer and learner is recreated thanks to communication tools 'despite' the distance involved (videoconference or business television);
(b) self-learning, when the learner does not interact directly with trainers;
(c) cooperative learning, based on interactivity at three levels: between trainer and learner, between learners themselves, and between the learner and his work environment.

The experiences presented at the Rome workshop demonstrate that in order to be effective, open and distance learning must be hybrid systems combining multiple education resources to offer differentiated training to learners: real and virtual resource centres, assisted or non-assisted self-learning, forming groups with other learners, training in the workplace, pedagogical support from an on-site trainer or a remote 'tutor', videoconferences, etc. This is the case, for example, with the 450 customised education workshops in France (*ateliers de pédagogie personnalisée* — APP) or the Isvor-Fiat resource centres in Italy.

2.2. A new way of thinking introduced by data processing

New technologies are bringing about a revolution in the way we think, changing our spatial and temporal points of reference and, consequently, our learning processes. A computer is more than a mechanism; it is a tool for rationalising thought, whose own logic influences the user's system of thought and imposes its mode of expression through standardised formats. This new approach must be taken into account by trainers when organising and designing their training response. New educational technologies call into question the traditional forms of unity of time, place and action. They multiply space and time and also fragment them:

(a) they expand the space dedicated to training, which transcends the 'classroom' to merge with the learners' workplace, workstation, or the private space when learners or trainers use their equipment at home;

(b) technical performance opens the way to 'just-in-time' exchanges and fragments learning time according to the availability and abilities of the learner: training is carried out over a variable period of time, both in work time and in leisure time.

23. The emergence of informal training practices

The fragmentation of equipment, place and time is blurring the frontiers between training, information, communication and production. Hitherto informal resources are being used for training. Jean Mallet, professor at the University of Provence, points out that new missions and functions are tending more and more to integrate training and professional practices, exploiting synergies of real and not deferred time, with informal training practices more integrated in teamwork, management practices, and in the staff training and tutoring function.

On the basis of intranets and various platforms (Lotus LearningSpace for example), major enterprises (Fiat, France Telecom, Thomson) are developing 'knowledge management', a structured system for sharing individual and collective knowledge that was hitherto informal or implicit. Knowledge management is at the intersection of total quality management, data processing and information services and forward management of posts and skills. It can be characterised according to three principles:

(a) to identify, accumulate and share changing knowledge;
(b) to encourage the emergence of individual and collective knowledge;
(c) to make the tacit explicit, and the explicit tacit.

24. Customisation of the learning process

The complexity of schemes refocuses the training process on the learner: the learner alone is able to organise the resources made available to him and re-establish the coherence of the various places and times by becoming henceforth the 'owner of his knowledge'. Customisation of the learning process might lead one to think of open and distance learning tools merely as self-training tools. The discussions that took place in the workshop underline three major risks in this regard:

(a) rapid drop-out from training because very few

people are actually capable of training themselves, explains Professor Pellerey: either they are unable to overcome the difficulties set or they are not motivated enough, an opinion confirmed by the experience of Simon Walker (mentor in cyberspace in the United Kingdom). The experiences of participants (Denmark, Norway, United Kingdom) all confirm the need to construct a support network to motivate users throughout their training, for example by organising groups of trainees at the beginning of the course;

(b) the illusion that everything can be learned without others; this might be true for acquiring knowledge but it is practically impossible for competences;

(c) a possible confusion between information and training, with the risk that training is confined solely to the consultation of databases.

The ability to respond to a set problem in real time (synchronous mode) or in delayed time (asynchronous mode) requires trainers to resolve two new problems:

(a) to measure and respect the optimum delay between the question set and the response given;

(b) to maintain the quality and timely delivery of training.

Resolving this paradox between expected speed and the time needed for maturity of thought in a learning process should provide key answers for redefining the limits between information and training.

28. An economic approach for a necessarily cooperative process

Bringing a large number of training responses to the largest possible number of learners leads training to take the economic approach of any professional sector which expands its product for a large number of users: training is considered in terms of quantity, cost, profitability, quality approach, standardisation, etc. All players in the training process (learners, trainers, technicians, data processors, graphic designers, the designers of training tools, managers) now operate interdependently. Trainers can no longer think of themselves as independent artisans but as players in complex systems in which everyone plays a specific role. The experience of the customised education workshops in France (Michel Tétart) also involves peripheral functions: for example those of the administrative secretaries of the resource centre in receiving learners and managing their courses.

3

A reconfiguration of trainers' roles and profiles

The round-table discussion led by Fulvio Penner (head of the training of trainers unit of ISFOL) highlighted the new configurations of training functions that can be found in the various national contexts (1). The occupational family 'trainers' was examined here from various aspects: those who plan, design, manage and supply training activities, in companies and in training organisations.

3.1. New families of occupations in companies

Using as a starting point the case of enterprises and organisations experiencing significant changes in work organisation, Jeanne Mallet identified three families of training occupation:

(a) a multi-level family which is developing distance resource centres for assisted self-training, in particular for technical and/or formalised training courses (accounting, legislation, etc.); it structures training on-line by bringing together on-line experts in content and training coordinators specialising in the field of learning in question;

(b) a family of occupations centred on coordinating the process of change: architects' coordinators interested in the dynamics of emerging competences and/or individual and collective knowledge coordinate actual and virtual working meetings, intranet networks, etc.

(c) a family of experts in education and the structuring of knowledge based on numerous intranet sites and the multimedia function.

3.2. From the dissemination of knowledge to mediation functions

The cooperative process developed in open and distance learning is changing traditional roles: the trainer is no longer at the centre of a knowledge that he distributes, but rather he is becoming one source of knowledge among others. Apprenticeship is being organised in networks, each point of which can be the epicentre without ever being so in absolute terms; knowledge is the object of an exchange.

(1) See the results of the European project DITRA steered by VDAB in Belgium (http://www5.vdab.be/vdab/europe/ditra), the contributions of Denmark, France, Ireland (Adapt project 'Trainers network'), Netherlands, Norway.

The various experiences presented in the Rome workshop allow us to outline standard profiles which are evolving from knowledge dissemination to functions involving mediation between the learner and knowledge, making trainers 'managers of knowledge and of learners' pathways':

(a) the conceptualised 'content expert' currently remains the predominant profile; he knows the target group, its needs, and the learning processes. He intervenes directly among learners but also in the design of learning tools;

(b) the 'trainer/tutor' ('coordinator', 'coach') in resource centres assists and advises learners in their customised training. His sphere of action is more restricted but he must have considerable knowledge in the disciplines related to his speciality;

(c) the mentor (distance tutor) has the task of supporting students in their courses, but he is not physically present in the resource centres; he gives customised advice to learners;

(d) the expert in technology and communication, designs and adapts training programmes. This network architect, the system designer, plans and manages the entire process.

3.3. Resistance from and identity crisis of trainers

These changes of role, which are often rapid, provoke stiff resistance. Among trainers this resistance takes various forms:

(a) it reveals an identity crisis when new technologies are seen as competition, replacing trainers; resistance from trainers reflects fear of loss of control and legitimacy;

(b) it expresses a cultural resistance to working in networks among trainers 'with little or no training in sharing tools, equipment';

(c) it conceals a lack of knowledge about technology, which is undoubtedly a temporary situation, in so far as the majority of active trainers have not yet themselves been trained by the new education technologies. This situation should disappear with future generations.

4

Horizontal competences for trainers

Whatever changes are taking place, experts agree that the use of new educational technologies is rooted in a foundation of 'traditional' competences supplemented by specific and 'horizontal' competences.

4.1. The heart of an occupation: pedagogical expertise and the structuring of training

The Rome workshop underlined that lengthy training practice in the presence of learners is essential for a distance trainer. Whatever the training medium, according to Professor Pellerey, the trainer remains guarantor of the coherence between the objective set and the results obtained. It is for him to choose:

(a) a pedagogical model that structures knowledge and contents, with reference to theoretical models;
(b) a typology of training situations;
(c) assessment processes and methods, the best assessment being a measure of the effect on users.

Finally, the trainer is responsible for the quality of the relationship between himself and the learners and between the learners themselves.

Competences relevant to the structuring of training are brought into use to construct complex but transparent systems, to take account of management costs and the political and strategic issues surrounding the new ICTs. The contributions by Denmark and Norway demonstrate that the success of those schemes is based on the ability of designers to anticipate and formalise from the outset an entire training path punctuated by very specific objectives. Unlike a 'traditional' course, it is impossible to adjust the content *en route*. Only very specific formalisation of all the stages in the training processes can guarantee that learners will be able to position themselves in the process at any given time.

4.2. Specific competences linked to new technologies

New competences linked to new technologies are developing. Thus, trainers must:

(a) have a very good grasp of technology and be practised in the use of multimedia tools used so that they can inform and advise learners about the technological equipment they need;
(b) master on-screen communication methods; adaptation of training content, hypertext links,

compliance with ergonomic rules on reading from the screen, design of a scenario, mastery of imaging and audio techniques for trainers, designing multimedia tools (CD-ROM or on-line training);

(c) master written communication, the principle means of communication between the trainer and the learner;

(d) provide methodological support to the learner to enable him to choose resources, organise those resources and prioritise them.

4.3. 'Horizontal' competences

Horizontal competences are essential for the proper use of the new educational technologies:

(a) to be a vector for social competences: the trainer must be able to work in teams and in networks so as to activate the triple cooperative dimension of the training process (between trainers and learners, between learners themselves, between the various trainers) and constantly foster the motivation of learners;

(b) have organisational and planning skills because new technologies demand considerable ability to plan ahead;

(c) to be able to think systematically and globally so as to organise the learning path of each learner while at the same time taking into account the stakes of the many partners in these complex schemes.

5

Training and the professionalisation of trainers in the Community context

In the Member States the training of trainers has already incorporated new educational technologies but more often than not on an experimental rather than systematic basis, except for in Ireland and the United Kingdom.

5.1. The added value of ICTs in the training of trainers

The Rome workshop provided some answers to the question:

(a) the chance of overcoming the reactions mentioned above by placing them in a practical situation. Such is the case with two continuing training experiences intended to make trainers more aware of, and then specialise in, the use of new technologies: the Italian national IT network FADOL (15 000 trainers trained between now and the end of 2001), supported by the ESF, and the French Autofod scheme (2 000 trainers in 2000), supported by the Community ADAPT programme. Initially, using new technologies in their most functional aspect (communication and information) facilitates their adoption;

(b) the trainer's experimentation with and awareness of the self-training processes that he is to develop among target publics, an interest stressed by the Irish network. Research conducted by Simon Walker (United Kingdom) into the use of the CD-ROM Mentor in cyberspace, designed by the University of Greenwich to train university tutors (mentors), is a good illustration of the difficulties experienced by mentors in training themselves alone and of the successive modifications made to the tool so that it would be used;

(c) the definition of a wider competence profile that emerges from the traditional field of training; such is the case with training established in partnership between the Polytechnic school of Turin and the Fiat Centre, Melfi, to train tutors using videoconferencing;

(d) awareness of the necessarily cooperative dimension to the training process, for the purposes of a customised training of learners.

5.2 Other professionalisation strategies

With regard to the use of technologies, training is not the only aspect of the professionalisation of trainers. When they do not have access to formal training, they invent new strategies for constructing knowledge: benchmarking, meeting and exchanging practices with other trainers and other groups, working in networks, use of multimedia tools, first as a communication tool and then as a training tool and finally the sharing or redistributing of tasks within the same work organisation.

Conclusions: some Community perspectives

The Rome workshop highlighted the topicality and relevance in various Member States of discussion of open and distance learning schemes and their impact on the training processes, as well as on the professionalisation of trainers.

Although not all countries have developed such schemes at the same rate, it is clear that new technologies are irreversibly transforming training processes into complex systems: they go hand-in-hand with the strong rise in the economic dimension to training, they mark breaks with earlier learning processes, they impose new configurations in which trainers must reposition themselves. They also accentuate the distinction between large and small enterprises and risk constituting factors that exclude certain groups that do not have access to them.

The Rome workshop could only make a start on examining these changes: the new technologies are tools whose technical functions are known but not yet their limits or their potential. They are far from being totally integrated into the training of trainers.

Nevertheless, the discussions identified common concerns:

(a) how can trainers' resistance to new technologies be overcome?
(b) where does the responsibility of individuals in organisations fit into these changes, in terms of work organisation, distribution of tasks?
(c) what are the characteristics of open and distance learning training scheme design?
(d) how can we develop among actors the networking and knowledge-sharing culture that will be the characteristic feature of training tomorrow?

The cooperative way in which the TTnet network functions is an advantage for initiating Community discussion about those points. It is proposed to encourage exchanges among the various national TTnet networks in order to support trainers in these processes of change.

Contributions

1. The different types of open and distance training and their impact on trainers' skills.

Michel TÉTART
IOTA+ (Réseau des ateliers de pédagogie personnalisée)

2. Open and distance learning and the professionalisation of trainers: types of distance learning and impact on trainers' skills

Luciano BATTEZZATI
ISVOR-Fiat

3. Changes to the roles and competences of in-company trainers within training systems using multimedia: future prospects based on the practice of two high-tech companies

Jeanne MALLET
University of Provence, France

4. Distance learning schemes for trainers: features of teaching and education

Michele PELLEREY
Università Salesiana di Roma

5. Mentor in cyberspace: developing interactive on-line training and support

Simon WALKER
University of Greenwich

The different types of open and distance training and their impact on trainers' skills.

Michel TÉTART
IOTA+ (Réseau des ateliers de pédagogie personnalisée)

Contents

1. Open and distance training: the principles and realities of today
   1.1. Inventory of the different forms of open and distance learning
2. The APPs
   2.1. Assisted self-training (new educational technology)
   2.2. The role of new communications technologies
   2.3. The new role of the APP trainer
   2.4. Pragmatic needs
3. Requirements related to professionalisation
   3.1. Support for those involved
   3.2. Autofod (learning to use technology and to organise open and distance learning)
   3.3. Interviews
4. Conclusion
5. Web site addresses

Annex. APP: a network of *ateliers de pédagogie personnalisée*

1

Open and distance training: the principles and realities of today

In this field as in others it is important to be aware of exactly what we are talking about, and to have a solid reference definition which is understood and accepted by everyone involved. In the field of open learning this definition is obviously fluid.

Proposed definition: by open training we mean training mechanisms which are partly or wholly based on self-training at distance and which may alternate with individual and/or collective modules (2)).

Although they usually have an important role to play in this type of training, teaching tools are certainly not the main feature.

Open training does not rule out the trainer, whose job may in actual fact be enhanced and diversified as a result, through the integration both upstream and downstream of actual training activities (structuring, involvement in tool design, research and development, coordination, etc.).

It aims at:

(a) facilitating access to training for those who are cut

(2) Extract from a guidance note from the DFP (Office of Vocational Training) — France, 1993.

off (physical distance, problems of availability, or unsuitability of options on offer...);

(b) promoting new forms of learner-based learning, encouraging greater responsibility and autonomy;

(c) allowing for, and developing, the productivity of the training system.

1.1. Inventory of the different forms of open and distance learning (3)

(a) **Correspondence courses** (CNED — National Centre for Distance Teaching, Open University, etc.). With these courses, teaching documents for a given course are sent out by mail once registration is completed. As a minimum they provide a marking service for the set exercises which are sent back by the learner.

(b) **Courses broadcast by radio or television**. Courses, teaching modules or documents are transmitted over the airwaves according to a pre-established programme of broadcasts. These broadcasts either target the public at large or are ordered by major institutions (universities etc.). Sometimes study manuals and tests are available, which are sent out by post.
Special satellite channels reserved for training purposes are currently being developed along the lines of TFS (*Télévision Formation par Satellite*). This project is being run by the AFPA (Association for adult vocational training), the CNED and the IGS (Institute of social management).
Other projects are also in their pilot stage, such as TV5's BPS (*Banque de Programmes et de Services*) which enables a trainer or learner to order the video programmes he/she requires via computer, to download them at distance onto the hard disk of his/her computer via a satellite link, and then to watch the programme.
Within such projects lies the issue of how the trainer integrates and uses these supports in his/her everyday work. A major programme user, this approach should allow trainers to design and even produce such broadcasts.

(c) **Schemes focused on resource centres**. On appointment, usually after an individual training plan has been worked out, these schemes allow trainees to use the necessary resources in order to follow their plan. These are either material

(3) Bernard Blandin (CESI — Centre for Higher Industrial Studies) in *Actualité de la formation permanente* No 60, Centre INFFO.

resources (books, cassettes, videos, computers, software, Internet or network access, etc.) or human ones (trainers, tutors, etc.). The APP example will be presented later. Access to resources or tutoring is also possible at distance in both synchronous and asynchronous form.

(d) **Distance training.** An approach based on distance training tools in real time, such as audio or videoconferencing with 'application sharing and distance accompaniment'. In this format the face-to-face trainer/learner relationship is reproduced using communications tools.

(e) **Virtual campuses**. These integrate various on-line resources with the possibility of asynchronous communication such as e-mail and discussion fora or 'chat-style' meetings in real time. These schemes aim to recreate a virtual university in all its facets: course administration, registration, administrative information, on-line courses, exchanges among students, among teachers, etc.

(f) **On-line self-training**. Unlike virtual campuses, this format makes teaching resources available on-line, to be used for autonomous self-training.

The APPs

I am presenting this network partly because I am very familiar with it, but also because the activities it is developing and the context within which this is happening make it easy to see how the training profession(s) is/are evolving within open training.
To quote some figures: in 1998 the network trained 151 000 people, putting in almost 12 million training hours for an average of 100 training hours per person.
The audience is mixed in terms of age, level and status.
The training activity of the APPs is based on the principle of individualisation: they propose tailor-made schemes in general education and basic technology.
The length, aims and forms of learning are different for each person.
In the area of educational technologies (which I am not confusing with new ICTs) the APPs are an original model in France compared with the predominant form of transmissive training (the trainer in front of a group).
So what exactly is an APP?

(a) **a place,** premises specifically laid out with different areas for the various activities: a reception area, a resource centre, work rooms, classrooms, etc. Also 'material': educational tools and resources, computers with network access;

(b) **ongoing activity** which is available all year round, open seven days a week, sometimes at night;

(c) a permanent and stable **teaching team** responsible for reception, assessment, documentation, training, coordination and management. On average it will consist of three to four people;

(d) **a network of partners** at the local level which 'prescribes' training;

(e) **a number of public or private sponsors** who purchase training for people under their aegis (in 98 % of cases this training is free for the beneficiaries). The State is the main sponsor, and its funding grants the 'APP label' to the managing organisation, as defined in the specifications.

NB: The APP is a training activity, not a new form of training organisation. It is but one link in local training provision, just as it is but one step along the individual's training and/or integration pathway.

The APPs have various supporting organisations: public and private, 'large and small'; the APPs and the network are the opposite of an institution.

The network function has been constant from the outset, ensured by IOTA+ (the APP back-up and liaison service). It involves written sources, a newsletter and an electronic network. There is exchange of information, practices, resources, consultation, etc. The national team acts as the relay and communications facilitator between the various groups.

What initially brought the APPs into being was a demand for training from different audiences who found it difficult either to get onto or to stay in training courses. These audiences were identified through the *dispositifs jeunes* (action plans targeting young people). Certain people from the field, including trainers, decided to tackle this gap by inventing effective training in response to these needs and thus started to experiment.

There was no a priori training of trainers as knowledge about individualisation processes was limited and scattered. What there was, was a desire, a will to shape training which was suited to audiences facing these particular difficulties.

Players from backgrounds in social work, the teaching world or business built up the resource centres which later became the APPs. Motivated 'trainers' gradually developed into open and distance training professionals.

Informal contacts between operators from different institutions and in various locations, who were facing the same difficulties were the first signs of the emerging network. Exchange of information and

making use of new knowledge were the foci for the training of trainers undertaken by the DFP, between 1985 and 1987, when the network was being developed.

Let me stress this right now: the network is a space which encourages the professionalisation of players in open and distance learning.

2.1. Assisted self-training (new educational technology)

The APP's aim is to find the right training for any given request.

What actually happens is this: visitors who come to the APP requesting training are taken in and offered an information session. If the visitor so decides, he or she then embarks on an assessment and placement process during which his or her knowledge is assessed and aims defined. Once this stage has been completed an education contract is signed which states the aims, length, and rate of training and the main lines of learning to be followed.

Training activity revolves around the centre for educational resources. In modules lasting on average three hours the learner then undergoes assisted self-learning. He or she uses the available resources (books, files, data files, software, Internet home pages, etc.) and works on building up knowledge. A trainer defines the aims of each module with the learners, helps them to organise their work and provides them with additional material.

The trainer 'runs' a module for 20 or so trainees who are all working towards different aims, at different rates and levels. There is genuine mutual assistance between learners, encouraged by trainers.

Based on an analysis of what is happening, the trainer regularly offers sectoral 'pooling' in order to explain a concept (e.g. how to calculate percentages).

Sometimes these pools deal with across-the-board activities related to methodological organisation, instructions analysis and written and/or oral communication techniques.

Each module is followed up and assessed individually, in order to define the aims and content of the subsequent module.

At the end of the contract a final assessment is made to see whether or not the goals have been reached. If the answer is yes, the following stage of the pathway outside the APP is discussed; if the answer is no, a further contract may be proposed within the APP.

On average the success rate in achieving aims is 80 %.

This type of approach demands genuine teamwork, with follow-up documents being drawn up for each trainee and with a collective definition of the educational approach. The choice of tools, type of classification, definition and linkage between the types of action for each individual must be transparent and based on an exchange of information, often in writing.

2.2 The role of new communications technologies

The aim of the APPs is to offer suitable and effective training in line with specific needs to as many people as possible by:

(a) shaking off the group mindset which is often ill-adapted to the diversity of adult audiences;

(b) leaving behind the idea of tutoring or private lessons, which are very expensive (a large amount of trainer time devoted to one individual) but not always effective.

New technologies allow resources to be diversified and extended (CD-ROMs for computer-assisted learning, Internet home pages for documentary research) and distance learning modules to be organised using messaging, videoconferencing, etc.

Thus the APPs use them to open local contact points, as close as possible to demand, where there is a 'tutor'; the content can be accessed at distance using Internet-style access at the resource centre. The link with the trainer is ensured by videoconferencing along with 'applications sharing'.

APPs are also contact points for distance learning where, for example, the work of the CNED (public distance learning body) is backed up by local tutoring, so that people can organise and even complete courses though access to additional material. This is also true for the Internet or satellite broadcast-based approaches. Technologies alone make it possible to consider applying a tailor-made approach on a large scale. Moreover, bearing in mind that the aim is to provide access to training for as many people as possible, including those with difficulties, proximity to the level of access provided and provision of support and encouragement are essential conditions which encourage success.

As far as the APPs are concerned, new technologies 'naturally' enhance educational planning, a field where the classic group pattern has already been challenged.

2.3. The new role of the APP trainer

This section largely draws on the work conducted by Frédéric Haeuw under the Leonardo 'Pollen' project (Pedagogic Open Learning Network) which was led by IOTA+ and aimed at setting up a network for exchange between trainers in open and distance training in several European Union countries (Wales, (the UK) and the Netherlands). Frédéric Hauew also coordinates two APPs in the Nord Pas de Calais region. He is preparing a doctorate in Education at Lille University.

Looking at the way in which an APP works we see that the seven main tasks are carried out by four types of staff:

(a) the **coordinator** (a position mainly held by women within the network) who sometimes works half-time as a trainer, or who is at least responsible for the initial contact;

(b) the **secretary**, who is also often responsible for reception work;

(c) the **trainer,** who is attached to a subject, organises the educational follow-up of trainees and is on duty as an 'expert';

(d) the **tutor** who assists learners in all areas, with particular emphasis on access to resources and methodological assistance. It is in fact the tutor who has the most frequent direct contact with learners in self-training and who is their everyday point of contact. His is a key role.

The following seven tasks have been identified:

(a) **coordination**: educational activities, regulating activities, interface with the political bodies (steering committee, executive board);

(b) **reception and follow-up:** telephone reception, organising information meetings, interviews and individual assessments;

(c) **education:** presenting content in media form (self-training documents), placing, contractualisation of aims, teaching support, methodological support, social support;

(d) **logistics:** management of the working area, fitting out, restocking and updating of the resource centre, upkeep of the computer and audiovisual hardware;

(e) **external relations:** links with 'prescribers', sponsors, permanent and one-off partners; APP promotion;

(f) **administration:** management of activities, financial management, secretariat;

(g) **development:** activity development (quantitative), partnership management, individual and collective skill development.

What is unique about this set-up is that no one person is exclusively responsible for any of these tasks. Similarly, none of the posts are responsible for a single type of task alone. Certain tasks are collective, i.e. all members of the team are involved in them to the same extent; others are essentially the job of one of the members with the others being less involved.

Thus, for example, although activity management falls to the coordinator, he cannot do it unless the secretary has kept an exact record of the hours completed and this has to be done in direct contact with the trainers who pass on the information. Another example: everyone is expected to answer the telephone, even though this is essentially the secretary's job, and must be capable of assessing within a matter of minutes the relevance of what the APP can offer as a response to the training problem posed by the caller.

Two examples of the collective function:

(a) restocking the resource centre which is up to everyone who bears any share of the responsibility (trainer, coordinator, secretary or tutor),

(b) methodological support for learners who choose to apply specifically to them (trainer, coordinator, secretary or tutor).

One of the specific features of the APPs is that everyone, irrespective of their basic field, must be aware of all available resources, including in areas other than their own.

It is therefore true to say that the organisational set-up of the APPs is necessarily of a collective nature. As such, it is the exact opposite of the traditional training model, where the teacher sets the rules in the class, and where the pupil has only one contact per subject. In terms of training of trainers, it is therefore essential that this collective dimension be taken into account. As Patrick Chevalier (Aska group) points out: 'the degree of competence and involvement of the trainers is partly individual, but given the diversity of the fields and occupations involved, it is necessarily collective. It is linked to organisation and capitalised at team level'.

2.4. Pragmatic needs

The second major feature of training requirements is that they exist in terms of what has to be done. The *ateliers de pédagogie personnalisée* are still relatively new (little over 10 years in most cases) and in constant evolution; their practices are not formalised or not as yet transferred while trainers involved in this type of situation are faced with solving real problems of action:

(a) how to set up a resource centre;

(b) how to design and build up an individualised approach;
(c) how to promote self-training among the public and combat the prototype of the teacher at the head of the class;
(d) how to convince those involved in the training world;
(e) how to change the traditional practices of these players;
(f) how to assess what is being done;
(g) how to 'sell' and 'market' the APPs.

These are all questions which need to be answered by the teams, who do not necessarily have the time to do this with a cool head and at a distance from practice. However, it is essential both to avoid rushing headlong into action before having given due theoretical thought to the matter and to shake up the training world.

What is therefore needed is a dialectic approach to action and to research which will make it possible to take on board the findings of educational science and enables players to think about what they are setting up, to assess their work and to formalise it so that it can then be passed on to other teams.

Let us consider the job of 'methodological tutor', for example, something new but of key importance. For the time being there is still no 'skills profile' to help define this job and the training requirements which it entails. It should be noted that the profiles of people in this job are most heterogeneous. The images people have of their own role are very different and there are many variations, as also applies to their image of other players.

Some people see the tutor as being vaguely related to an archivist; others think he is an IT or multimedia expert; another group feel that he is a 'mark II trainer', even a coach or tutor. And finally, some tend to overestimate the job (a tutor should be a highly-experienced trainer), whilst others underestimate it (a tutor can be a novice trainer who is just being broken in).

Thus the first training requirement is to establish where the tutor fits into the system, to define what his role consists of, what his specific competences are, and to prove his efficiency.

This player needs training in technology, education, and communication.

The technological requirements of this job are related first and foremost to knowing about computers and how to use the media. This is an important aspect albeit not the main one. It is enough to know the bare minimum about computing to be able to carry out emergency 'repairs' or to manage to call the technical

services and provide adequate information. Still on the technological requirements: the tutor must have the skills needed for documentary management. Without being an archivist by trade he must know how to organise the provision and consultation of resources. The essential requirement in his training, however, is of an educational and communicational type.
His role as an organiser involves knowing how to organise and run reception procedures, run information meetings, 'reception points', create a pleasant working environment, encourage communication and exchange within an audience (group coordination). His social back-up role means that he must know about interview techniques, active listening and how to extend support to those with difficulties. He must be able to work in tandem with different partners and social contacts, and have a sound knowledge of the law and administrative recourse. His role of methodological support means that he must know about the educational stages in learner pathways, and be versed in the techniques related to working methods (efficient reading, filing, note taking, etc.). And finally he must know about the learning processes, be aware of cognitive education (learning to learn). On the other hand, he is not expected to have any particular teaching skills.

Requirements related to professionalisation

It is easy to see how by turning educational traditions upside down and sparking a 'Copernican Revolution' open learning runs up against strong resistance to change, because of uncertainty about the professional future of teachers ('trainers will disappear, since they will be replaced by the media') but especially because of fear of new occupations, of changing places in the classical 'educational triangle', of no longer having a grasp of everything, of no longer being in face-to-face contact with learners, of having to work in a pool, of having to plough one's knowledge into resources and thus in a sense becoming separated from them, and even about being judged on one's output, etc..
All these uncertainties, anxieties and questions related to the future (exacerbated by the economic crisis, the ups and downs of training policies and job insecurity) will be answered by the professionalisation of trainers, which is the third feature of the training needs of those involved in APP and, more generally, in open teaching.
By moving away from traditional teaching methods and proposing a new approach to people in training, the players involved in these mechanisms have turned

professional organisations upside down and split up everyone's roles and responsibilities.
In this respect, the collective agreement which governs the way in which training organisations work is already outdated, based as it is on a job hierarchy of roles and positions which no longer corresponds to the way in which training systems based on self-training are organised. It does not even mention, for example, the role of educational output, whether this be the production or adaptation of documents, which is one of the main concerns of trainers in an APP situation.
Another example: splitting time up between 'face-to-face teaching' and 'preparation' no longer works in a 'trained-trainer' situation based on an appointment or individual interview, or a tutor doing everything at once (i.e. within the same time slot and almost simultaneously performing educational support, dossier follow-up and computer maintenance!).
Thus, by listing the trainer's specific activities point by point it emerges that only six out of the 16 are genuinely subject-related, that most activities are not carried out on a face-to-face basis but that, paradoxically, they all have to be carried out on the spot.
It is therefore essential that new legal frameworks and rules of play be invented which clearly define the roles, missions and levels of competence of the various individuals involved, and which recognise these new competences; and to invent new types of training for trainers.

3.1. Support for those involved

When the State decided to develop the APPs, it also set up in parallel the APP back-up and liaison service (IOTA+), whose role is to help operators by organising exchanges and discussions between teams, by identifying 'good practices' and by providing the network with common working instruments.
The network is a dynamic space which aims to set up direct links between players and/or to provide scope for the discussion of issues or projects. It is targeted exclusively at professionals working within the APPs, who are seen as the driving force behind the system.
Work on the input of communication technologies to training has been one of the strong points of network activity for almost 10 years.
Three years ago, the importance of their impact on the activity of the APPs seemed to be such that today one of the main roles of national organisation is to support

the teams in order to encourage the introduction of new technologies into the APP training system. One approach was particularly favoured: the training of trainers. It was on this basis that the Autofod programme was introduced.

3.2. Autofod (Learning to use technology and to organise open and distance learning)

This project, which is financed under the Adapt II programme, aims at training 1 500 trainers from five organisations or training networks (CESI, AFPA, EDF/GDF, CEGOS, IOTA/APP, CLP) over a period of three years in two ways:

(a) a short five-day module provides a first taste of, and introduction to, the use of technologies in training and the development of open and distance training. It is open to 1 400 trainers with no requirement for prior knowledge of, or ability to use, these technologies;

(b) a second cycle of around 20 days, 10 of which are on a distance basis, targeting 100 or so trainers, aims at putting them in a position to set up and run an open and distance learning approach.

On the same occasion other instruments were also introduced:

(a) a job description was produced for the trainer in open and distance training;

(b) an Internet/intranet site was set up and developed for the occasion (www.autofod.com), which provides access to certain resource tools and makes it possible to manage training and exchange between trainees, or between trainees and trainers;

(c) a series of thematic seminars open to all Autofod participants;

(d) the production of a series of videograms, educational tools aimed at supporting the training of trainers.

The system plans for the quantitative and qualitative follow up of activities (particularly the impact of Autofod on everyday practices).

The partners are considering how to perpetuate provision and to open it up to all trainers irrespective of the body to which they belong.

It is difficult here to assess the operation (obviously on a purely interim basis). Here are some ideas, nevertheless.

(a) Approximately 600 people have followed a module to date, 60 in the second cycle. On occasion it proved difficult to fill these modules. Even though

the people who sign up are prepared to take an initiative to develop open and distance training, the same cannot always be said of the training organisations to which they belong.

(b) Creating partnerships, such as mixing trainers from different organisations has proved both positive and productive. Obstacles can thus be identified, as can each individual's strategies, and contacts established with an eye to future projects. The main educational aim here is to enable everyone to develop, or even implement, their own open and distance training project through a micro-project under module 1 or a 'real' project under cycle 2. This concrete approach is one of the motivating factors for those who sign up for Autofod.

3.3. Interviews

The interviews which the IOTA+ team has just carried out with 30 or so APP trainers will be distributed to the whole network. The interviews were based on reactions to Frédéric Haeuw's text (see above).

These reactions confirm the fact that in spite of (or maybe because of?) their different backgrounds, APP trainers share the human values which provide for a professional approach.

This global experience is ready to be built on, via a tool, an organisation, and the numerous available skills: no one disputes the proposed text, maybe apart from the questions relating to whether or not there is a specific job of tutor other than that of trainer. The small size of APP teams necessarily promotes the development of multiple abilities, with everyone wearing several hats.

While it is fair to assume that several 'jobs' will develop alongside open and distance training in the larger institutions, future approaches will centre on building up logical procedures and teamwork.

Conclusion

The widespread and ongoing demand for adult training means that training provision must be adapted quickly so that it can always be ready to respond to a variety of requests. This is a tall order, which necessitates job adaptation and a rapid increase in the number of trained trainers.

One of the essential preconditions for achieving this goal is the pooling of human and technical input as a guarantee of success. The same also goes for genuine concertation and an effective partnership between the various players, allowing an ambitious, simple, economical and effective system to really take off. It is only by creating this partnership and striving to achieve complementarity, that we can establish the complete set of tools with which to meet the challenge.

Overall provision today continues to be of the traditional type. It would be wrong to believe as a result of the barrage of publicity that we've arrived at something new – that everyone, trainees and trainers alike, have integrated using new technologies into their daily work. All kinds of experiments are indeed going on but many of them have no future. The conditions for generalising this approach do not exist. There are still plenty of obstacles at many levels — trainers, learners, institutions, companies and the authorities. Even the technologies themselves are not always reliable. The policies applied continue to depend very much on giving instructions — leaving the players on the scene with very little room for manoeuvre.

Through their subject knowledge and their readiness to accept a multiplicity of approaches and points of view the role of professionals is essential in ensuring the mutual (cross-) transfer which will herald in radical change in the way we tackle the issue of lifelong training.

We are faced with a radical, albeit long-term process. Success will depend on in-depth and ongoing thought, procedures and experimentation. Part of the future of our societies is at stake. It is a challenge for our democracies to achieve success involving as many people as possible.

Aware and well-trained professionals must form the core of this project.

5

Bibliography

Some references:

- *Le guide du multimédia en formation: bilan critique et prospectif.* (Guide to multimedia in training: a critical and forward-looking review). A collective work published under the aegis of Jacques Naymark. Edition Retz.
- *Nouvelles technologies éducatives et réseaux de formation: des enterprises parlent de leur expérience.* (New educational technologies and training networks: companies discuss their experience). EDF-Gaz de France; France Télécom; Renault. Editions d'organisation.
- Issues of *Actualités de la formation permanente* (The latest in continuous training) (Centre INFFO).

Some web sites:

- www.fffod.fr (Home page of the Forum Français pour la formation ouverte et à distance) provides a wealth of information and references for sites in Europe and worldwide.
- www.autofod.com (Home page created by the consortium developing the Autofod training for trainers programme).
- www.app.tm.fr (APP network home page).

Annex

APP: a network of *ateliers de pédagogie personnalisée*

With 461 training centres throughout the whole of France, the network of *ateliers de pédagogie personnalisée* (APP) offers close-to-home personalised training for all, in general education and basic technological know-how.

Personalised made-to-measure training

APPs provide open training activity which revolves around an educational resource centre using different supports (books, videos, software, distance training services, networks).

APPs provide personalised education where each individual enjoys their own personal programme which is formalised in an educational contract which states: the negotiated aims, how the work proposed is to be organised, its rate and duration, the content of the means for recognising what is learned.

Training for all

Accessible to any willing person with a training project, irrespective of their level and status.

In 1998 the APPs trained almost 151 000 people. Participants come from all walks of life: young people or adults, job-seekers or workers with a clearly defined personal or professional project. Each APP welcomes on average 300 to 400 people per year for training cycles lasting between 50 to 200 hours.

The most usual aims are:

(a) to sit exams;

(b) to prepare a qualification;

(c) to prepare for promotion or a return to work.

Training on your doorstep

APPs are a training activity at local level. Today there are 461 APPs throughout the whole country, more than 250 geographical contact points and 40 prison contact points.

Training which integrates new technologies

The APPs offer in particular:

(a) learning in a type of organisation and working method which encourages autonomy;

(b) using multimedia training supports (CD-ROMs, networks and web sites);

(c) learning to use new communications technologies (office IT tools, the Internet ...);

(d) back-up to assist in distance training within

partnership (CNED, AFPA, companies ...). The APPs are a point of access to distance training.

The partners and the means

The setting up and running of an APP is based on local partnership. The project is run by an educational team. State financing (Drtefp) from the Fund for Vocational Training underlies the APPs (register annexed to circular DFP 94/01) through an annual agreement drawn up with the support body (usually public or private training organisations). The main partners are: the State, the regional and local authorities, companies, etc. The APPs develop projects under the European programmes.

IOTA+, the APP back-up and liaison service.

At the request of the DGEFP, IOTA+ is called upon to develop tools and means of communication and exchange based on the activities of the APP teams. It encourages the formalisation and transfer of the most innovative practices. For the APPs and their partners it is a point of reference and reflection for the role of the APPs. It also provides information about the APPs to any interested operator from France or abroad.
IOTA+ publishes a bulletin (network newsletter), draws up and circulates the national APP registry and runs a web site: www.app.tm.fr, including areas for work, information and exchange including the statistical management of all the APPs activities.
IOTA+ works alongside the APPs in their programmes and operations towards open and distance training and integrating new information and training technologies. IOTA+ is a founding member of FFFOD (the French forum for open and distance training). IOTA+ is one of the component parts in ORAVEP's activity.

For information contact IOTA+.

Coordinator: Michel TÉTART.
36, rue de Laborde, 75008 Paris
Tel. 01 53 04 01 64.
Fax 01 53 04 01 48
E-mail: iota.iota.@wanadoo.fr.
Web site: www.app.tm.fr

Open and distance learning and the professionalisation of trainers: types of distance learning and impact on trainers' skills

Luciano BATTEZZATI
ISVOR-Fiat

Contents

1. Prospects and trends in the demand for training
2. An initial classification of technologies
3. Experience and practical applications: videoconferencing, business television, on-line services, learning centre
4. Working processes, skills and new occupational profiles
5. Questions to be answered

1

Prospects and trends in the demand for training

The main challenge that training designers currently face is how to adapt rapidly to changes in the demand for training. As a result of the growing importance of learning processes in enterprises, customers increasingly require efficient, targeted and measurable training accompanied by comprehensive measures to disseminate know-how. However, in parallel with this widespread need for continuing training, customers are increasingly imposing organisational constraints, such as the need to contain training costs, to use more flexible training methods, to involve increasingly large numbers of people while keeping absences from work at a minimum and to create and monitor individual learning paths which are, however, linked to specific paths to occupational advancement.

Distance learning, which makes the most of the potential offered by new technologies, can offer efficient and flexible solutions to these questions as, on the one hand, they support, supplement or replace traditional training routes and on the other, they can respond to the need to link learning, communication, information and the dissemination and management of knowledge accumulated in the firm.

These needs cannot be met separately or successively; they must be kept together within a single training design that is able both to standardise and personalise contents, provision methods and communication styles. In other words, faced with complex and structured learning processes, we must think in terms of training 'systems' and educational engineering.

Isvor-Fiat's policy is to choose among the various technological solutions and incorporate them into a system designed, applied and monitored jointly with the customer.

However, the main features of the current situation seem to be:

(a) a great deal of confusion;

(b) a 'fashion' effect leading to too much theorising about the new technologies before actually using them;

(c) mostly piecemeal and experimental applications.

If the new technologies are to be introduced into training, we must think about their impact on the design and management of learning processes and on the skills nowadays required from those who design courses, i.e. instructional designers.

An initial classification

It may be useful at this point to suggest a classification that could help create a common language and shared reference model for the community of professional trainers. Within the broad category of 'distance learning/training', we propose to differentiate the various technologies according to the methods by which the learning process is managed and the communication processes they entail.

Telelearning

In the case of videoconferencing or business television, the learning process is managed 'externally', i.e. it is the task of a trainer or more generally of training staff external to the individual who is learning (instructor, tutor); telelearning continues to use traditional methods of training, although mediated by a television screen, and communication is of a synchronous type, i.e. training is supplied and consumed at the same time.

Self-learning

Technologies of this kind allow users themselves to decide when, at what pace and what they will learn. The training setting is very different from that of the traditional classroom, as training is generally consumed

in isolation and interaction is only with a computer (CD-ROMs, CBT, business simulation), in a closed learning environment, with no links with the outside world or contacts between learners and/or instructors/tutors.

Cooperative learning

Network technologies make it possible to reconstruct a social and relational dimension for PC users: they recreate links and connections that help people feel that they are part of a group — even though this group is virtual — and pave the way for cooperative learning methods. In this model, responsibility for the learning process does not lie only with the person who 'constructs' and chooses his or her own training/information route by navigating the Internet and accessing the various resources available, but is also shared with the group or professional community in which the person independently decides to participate. In other words, 'cooperative learning' creates an open and very innovative learning environment where priority is given to asynchronous methods of communication, supported by remote assistance and distance tutoring. New forms and channels of communication are being tested (electronic mail, chats, discussion forums, etc.) often for the purposes of socialisation, cultural exchange and a sense of belonging to a virtual community. The boundaries between work and study are being blurred as the social learning process is not just limited to the virtual community, but continues outside the network and becomes part and parcel of work itself. The traditional distinction between working hours and training hours is also being blurred, since the place at which work and training take place is often the same (the user's work station), and because the shared need to learn as and when necessary, i.e. during work, tends to merge these two activities.

The main features of this type of technology lie in the fact that it can be readily updated, is highly flexible and can be personalised in a range of ways; network technologies may also provide a single platform that can integrate other technologies, such as videoconferencing or video news; this looks set to be the path that future developments will follow.

Although the Net is undoubtedly the emerging technology with the most and best development potential, there is no trend towards replacing classroom or on-the-job training by web training or the simple production of network courses; instead, networks are used as forms of integrated support for managing and governing learning, business knowledge and communication and training systems.

Experience and practical applications

Diretta Formazione is a distance learning initiative using interactive broadcasting that combines business television (BTV) with audio conferencing. It was decided to use this technique in view of the size and geographical distribution of the user population (technicians at Fiat Auto dealers in Italy), the fact that dealers already had a satellite reception system for the commercial updating of Diretta Auto and the need to offer them fast, timely and comparable updates of a highly specific nature, largely in the form of refresher courses on product innovations.

Lastly, under the 'Fiat Auto Net learning system' project, which is intended to implement a system of continuing training and professional skills development, Isvor is constructing a virtual learning environment, via the intranet, known as the 'Isvor learning campus'. Here professionals can obtain guidance on vocational refresher courses and tutoring, and have direct access via PC to a range of courses linked to a map of each sector's occupational skills. To this will be added a series of combinations using both the world wide web and CD-ROMs.

Open learning schemes include the Learning Centre and Learning Point which are sites for learning largely by self-instruction.

The creation of the Melfi Learning Centre is of particular interest. This is a self-instruction centre intended to meet the educational advancement needs of employees of the SATA factory. The Learning Centre, which is located within the factory but is also open outside working hours, uses telematic and multimedia technologies to offer guided training courses on both occupational issues and subjects of personal interest (languages, psychology, arts and so on). Tutors play a key role in working out the training programmes most in keeping with individual needs; time, frequency and pace of study are decided by each user according to available time and personal interests. In terms of quantity the results have up to now been more than satisfactory: in May 1999, 1 430 of the potential population of 6 000 employees had registered and 770 had completed a structured training course. These figures show that there is substantial interest in this form of learning, particularly among young users who channel much of their free time into it. Various features, such as a range of different learning solutions using learning methods and styles geared to the individual or group users, have been built in so that the learning centres and learning points can perform

their tasks as distributors of knowledge and facilitators of learning in the best possible way.
It is important to stress that all these experiments have been carefully evaluated in order to monitor and check results from the point of view of enjoyment, learning (by comparison with traditional training), transferability, cost/benefit ratios and organisational impact. The various factors of success have been identified and methods relating to different work processes have been analysed and placed on a formal footing.

Working processes, skills and new occupational profiles

As training scenarios develop, training methods become differentiated and the need to combine communication, information and training processes become increasingly apparent, the occupational skills and profiles of the staff who will design and manage an increasingly complex and structured system also need to be reviewed.
The new tasks and responsibilities of trainers include the ability to steer customers towards those solutions most in keeping with the organisational system and context within which these solutions are to be used, including any changes that customers implement. This requires an ability to evaluate the efficiency, advantages and drawbacks of various technologies and design training jointly with the customer. Trainers therefore have to be seen as engineers who suggest, design and formulate the architecture of the system; identify the instruments and media that best serve the objectives of the customer, the populations involved, the time available, the cost/benefit ratio and the content; and propose, on the basis of the various variables involved, classroom rather than distance learning, CD-ROMs rather than textbooks or

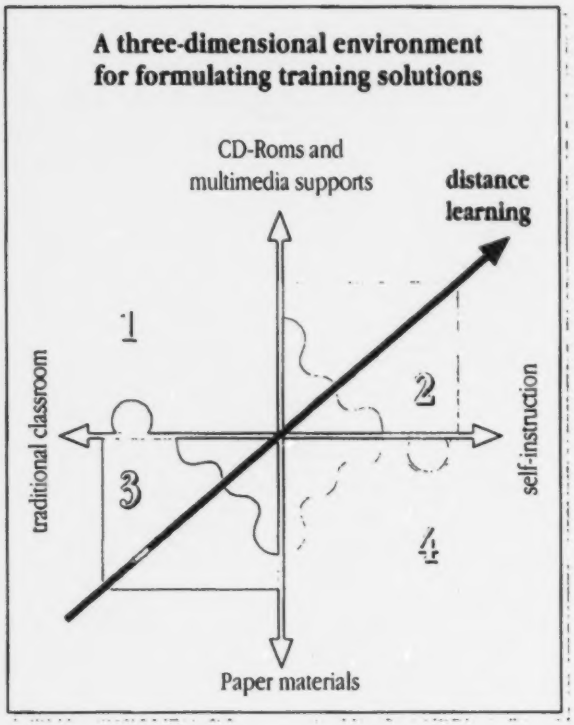


Figure 1

videoconferencing rather than self-instruction courses. However, trainers will rarely be in a position — as mentioned above — where they can recommend a single technology: design is increasingly system-based in a 'three-dimensional' context where the objective is efficiently to solve the customer's problems (Figure 1). It is not just the combinations of the various solutions/technologies that need to be integrated, but also the various functions that the system has to guarantee: learning, communication, information and knowledge management.

These kinds of skills require the same competences as those of a traditional trainer/designer: a knowledge of learning and communication mechanisms continues to be an indispensable prerequisite, as do sound methods of instructional design, from needs analysis to the evaluation of results and processes. More specialist skills can then be grafted onto these competences.

A particular feature of distance learning system design is that the skill structure is more complex: a common process of instructional design is underpinned in practice by a wide range of sub-processes related to the particular technologies being used.

This makes it necessary to strengthen, and make explicit, skills related to method so that not only can contents be transferred to the new media, but also methods and the ability to think about learning and cognitive processes and motivations and about the management of training processes.

Designing and implementing a distance training system does not only require more time than designing a

traditional course, but also involves work by people with a range of skills: from the instructional designer to the content expert, the various technology experts (from the television team in the case of business television to software analysts for CD-ROMs) and the project coordinator. What is needed is therefore a team of professionals able to combine their own skills with those of others and to deal with customers in a flexible and efficient way. This team-working ability in a wider group is therefore an important feature of the occupational skills of trainers of the future.

Process skills such as tutoring (remote or face-to-face) and coordination skills will be increasingly important: the ability to hold together the pieces of the system and to impose strong organisational control is undoubtedly a key factor in the success of distance learning schemes.

Questions to be answered

The questions that can be raised here are:

(a) is it still possible to speak of a distance trainer? Is this not too restrictive a term in view of the broader and more complex skills required from these trainers?

(b) how can trainers make the transition from skilled workers to distance training system professionals?

(c) how can new and increasingly complex competences be developed?

Changes to the roles and competences of in-company trainers within training systems using multimedia: future prospects based on the practice of two high-tech companies

Jeanne MALLET
University of Provence, France

Contents

1. Introduction
2. The 'Training platform' operations at France Télécom (4) and on-line training
   2.1. The aim of the platform operations and their implementation
   2.2. Distance training platforms (commercial and technical) (5)
   2.3. Putting it all in perspective
3. Knowledge management in Thomson Rousset's electronic components branch
4. Conclusion
5. Bibliography

Annex: Skills required of trainers involved in the implementation of on-line training in companies.

1

Introduction

The changes to the roles and competences of trainers (6) prompted by present and future technological revolutions and in particular multimedia and 'on-line' training would appear to be of considerable importance. Many studies already exist on the subject; we will be referring in particular to the work of Pierre Caspar et al: *Nouvelles technologies éducatives et réseaux de formation* (7), and to the conferences and debates organised over recent months on this subject by our Department of Educational Science (8), with the assistance of our partners in industrial companies and the regional services (9).

(4) Observation largely based on the following three major regions: south-west Aquitaine, central Languedoc-Roussillon, and south-east Rhône-Alpes.

(5) Based on the Lotus LearningSpace forum platform.

(6) In training organisations and companies; see Jeanne Mallet's speech to the AECSE Strasbourg Conference, December 1998 (annex 3): 'La formation continue dans les entreprises françaises. Enjeux et perspectives pour les années a venir (Continuous training in French companies. Future stakes and prospects).

(7) Éditions d'organisation, 1999; particularly chapter V: 'Tendances et faits porteurs d'avenir', and the bibliography.

(8) University of Provence.

(9) GARF Provence network.

Using two case studies of companies ([10]) and the experience of our own department we will strive to feed a more general debate on these changes, which should obviously be taken much more into account as of now in all training courses for trainers and for training coordinators ([11]).

The experience of two companies staggered over time and in space

We opted to base ourselves on two case studies of companies rather than one, in order to better highlight the extent to which these technologies are integrated in internal 'training' activities and, beyond that, how they contribute to developing individual and collective knowledge and skills.

Our presentation will aim to show how the use of these technologies is accompanied by the breaking down of distinctions among traditional 'training' jobs and activities; at the same time, multiple processes emerge which on the one hand set change in motion, and on the other increase the use and sharing of know-how and knowledge within organisations.

Finally we will show that it is not so much the intrinsic qualities of the tools themselves but rather their use ([12]) in training and skills development which is essentially shaped by cultural factors. Such factors are all the more important because of how difficult it is for players to detect them within their workplace, even more so because of their limited malleability and capacity to evolve. What we can see here more than ever is that it is the 'cultural (aspect) shaping and prompting the structural (aspect)' ([13]), even though — as is always the case — tools, technologies and new structures and organisations have quite an impact on values, standards and attitudes within organisations.

([10]) At regional level.

([11]) Whether or not they lead to a qualification.

([12]) As well as the technical and organisational provisions for their use.

([13]) See Jeanne Mallet, L'entreprise apprenante (The Learning Company), Onéga Formation Conseil Editeur, 1994.

2

The 'Training platform' operations at France Télécom and on-line training

2.1. The aim of the platform operations and their implementation

The aim is to design and implement new management training schemes for middle managers in the technical and commercial sectors:

(a) by decentralising (trying out different formulas from one region to another) and therefore diversifying training schemes;

(b) by closely associating training and feedback from experience, alternating short lectures or theoretical input with thematic working groups;

(c) and finally by making the best possible use of all available multimedia and distance communication tools (France Télécom's home ground, which is why they want to demonstrate possible applications ([14]).

In the three regions targeted by this experiment a day was set aside for distance exchange, essentially through videoconferencing (there was even a link-up with Paris H.Q.); pooling tools (mail and groupware) are also used to varying degrees according to the region. But for the time being the feeling is that it is not possible and/or desirable to put training modules on-line.

2.2. Distance training platforms (commercial and technical)

Conversely, for the past two years work has been going on into the design and testing of on-line modules throughout the whole country, mainly for commercial and technical audiences ([15]). Such modules take up on, and gear down, off-the-peg training, thus aiming to bring down trainees' travel and accommodation costs, cut back on time spent on face-to-face training, and encourage self-training both in and out of working hours, in contact with the managers and with the assistance of local tutors.
The trainers involved with these on-line experiments are volunteers working in a team to develop the structures for innovative forms of training, possibly focusing more heavily on the dynamics of learning

([14]) Or even their effective and desirable uses.

([15]) To date this has involved 2 000 learners; the plan is to cover tens of thousands over the next three to five years.

among their audience ([16]) than do more traditional 'face-to-face' approaches. With some exceptions, it has so far proved expensive and time-consuming to design and implement such structures, while human and material pay-offs are limited.

In the words of Bruno Aujard, head of France Télécom's 'On-line training' department ([17]) '... you have to constantly rethink any on-line project with an eye to reducing its content, and systematically ask what you want to change in the learner .... Our aim is to distance ourselves from the 'trainer document-trainee document' paradigm and to move towards dovetailing between the activities of the learner, use of cooperative learning areas, integration into work, doorstep tutoring, and the constant availability of job-related information ...'.

2.3. Putting it all in perspective

This company, which is at the heart of the spread of the new technologies, still faces major problems as to the development of the roles and competences of in-company trainers. On the basis of an approach such as the one mentioned above, as well as on other training activity currently being undertaken in the regional 'IRET' training centres, we can already draw the following conclusions:

Faced with the need to raise competitiveness quickly, over the last three to five years France Télécom's internal training centres ([18]) have seen the introduction of drastic changes ([19]):

(a) a move away from ready-made to made-to-measure training which better covers users' needs, in close proximity to regional headquarters and production units;

(b) besides content-based technical and commercial training, the development of training for the development of managerial, relational and commercial skills for many groups of players (i.e. support skills rather than simple transmission of content);

(c) designing self-training schemes and preparing the ground for distance and on-line training modules, especially on technical topics;

([16]) Trainer-trainee interactivity slots are almost invariably planned for (in various forms).

([17]) Magazine interview in Oravep's *Ressources*, No 44, August–September 1999.

([18]) Whose staff numbers have dropped in three years from 1 500 to today's 600.

([19]) See Mallet, 1998.

(d) the overall integration of new technologies and multimedia in all training mechanisms and organisation of change.

Generally speaking, however, the training machine is finding it very difficult to switch over to these new roles and functions, which tend to integrate training and professional practice to an ever greater degree; operating in real rather than deferred time; and making use of informal training practices (which can be better integrated within a team approach), management practices and the training and tutorial role of the surroundings.

To oversimplify somewhat, we could say that in this company, as in many others, three families of occupations are emerging which are taking over from the training department and the in-company and out-of-company trainers. This movement centres on a series of processes for the use, sharing, and transfer of knowledge and know-how, all based on new technologies.

(a) The first will *develop the distance resource centres for assisted self-training*, particularly for technical and/or 'formalised' training (accounting, legislation ...); on-line training is set up by a combination of subject experts and on-line training organisers specialised in that area of learning.

(b) A second family of occupations is aimed at *fermenting change*: players are essentially consultants involved in the dynamics of emerging skills and/or individual and collective knowledge. The focus here is the organisation of face-to-face and virtual meetings, but also on the use of tools such as intranets.

(c) Finally, there is a family of experts in education and knowledge structuring who create the many informative intranet sites, particularly those of the operational teams (e.g. sales service). These sites are destined to become of greater training and educational value for the user.

Thus, the problem faced by large companies is how to adapt their established centres and extensive networks of in-company trainers. On-line training will only be developed on a large scale if we can move from the present, vastly expensive cottage industry to a situation where the large number of internal users makes pay-off possible.

The boundary between information, self-training and training is blurred even further by the fact that these three areas are all based on a common tool: the company's intranet.

Knowledge management in Thomson Rousset's electronic components branch

Like France Télécom, Thomson's in-company training centres are developing on-line training structures starting with platforms for technical and managerial training along very similar lines to the ones which have just been described.

We would like to use one example, however, to show the vast field which is opening up around knowledge management within organisations by extending the same approach and the same tools ([20]). There is not enough space in this study to develop the theories of knowledge which necessarily underlie the skills of the engineers of change involved in this specific field. Are they former trainers? Sometimes. Are these newly emerging occupations to be covered by new trainers ([21]) with multiple skills? These skills could be those of experts in the emerging dynamics (both individual and collective) of knowledge and know-how, rather than the usual ones of subject specialists or the traditional ones of general consultant coordinators; while having in-depth knowledge of modern technologies these experts would also be sensitive to the various obstacles and power games which could harm these dynamics (see diagram in Annex 2).

This last family of occupations is obviously more than ever based on new technologies, and in fact in Thomson-Rousset the switch from tacit to explicit knowledge comes about through intranets and various platforms, starting from virtual working groups.

Thus, yet another new field of skills is opened up for trainers, although necessarily in open-minded and culturally-aware companies. Such awareness encourages networking and the sharing of knowledge and therefore overcomes the usual obstacles of players' power strategies and keeping back information.

([20]) Lotus LearningSpace platform, Anytime or Campus version, or the future version 4.

([21]) Coming off training courses for trainers which lead to a qualification, such as the DESS in France, in particular.

Conclusion

The advent of new technologies, particularly in companies, is having a dual impact in the field of training and the jobs and skills of trainers. As they herald in rapid changes in jobs and roles the information and communication technologies which transform professions and skills create the need to move towards cheaper, faster and more frequent self-training models. At the same time, these same technologies which are available to trainers and all other engineers of change within organisations also make it easier to update skills. Although the essence of the trainer's job continues to be the design of training programmes and methods, particularly for on-line technical (and/or formalised) training, the other professions which are emerging to support the development of knowledge and skills in companies tend rather to break with the traditional competences of trainers; these professions are even likely to lose the title of 'trainer'.

Thus, in the 'cognitive society' ([22]), where everyone in a company is constantly trained or training to a greater or lesser degree, it is the actual title of 'trainer' which will vary or blend into a landscape of double or three-fold skills, and certainly of team work.

([22]) See EEC White Paper on this subject.

Bibliography

Distance training and multimedia in training

- Annoot, E., *Les formateurs face aux nouvelles technologies: le sens du changement* (*Trainers confronted with new technologies: the course of change*), Ophrys, 1996.
- Aoulou, Yves., *Formation professionnelle à distance: les nouveaux horizons* (*Vocational training at a distance: the new horizons*), Courrier cadre, No 1190, January 1997.
- Arnaud, G., 'Le formateur face au multimédia: entre complexité et perplexité', *Éducation permanente*, No 127, 1996 ('The trainer faced with the multimedia: between complexity and perplexity').
- Bahri, Jacques, *Formations ouvertes et à distance: les propositions du FFFOD* (*Open and distance training: the FFFOD's proposals*) INFFO Flash, No 512, 1999.
- Barba, Thierry, Giffard, Pierre, *Les téléconférences multimédias* (*Multimedia teleconferencing*), Éditions Hermes, 1998.
- Barbarant, Jean-Claude (rapporteur), *Conseil économique et social, enseignement à distance: réalités, enjeux et perspectives* (*Distance teaching: realities, stakes and prospects*), Éditions des journaux officiels, No 4356, 1997.
- Baron, G. L., Baud, J., La Passardiere (de B.), *Hypermédias et apprentissages — Actes des deuxièmes journées scientifiques* (*The hypermedia and learning: report from the second scientific meeting*), Lille, 24 and 25 March 1993, INRP, CUEEP, AEPI, 1993.
- Bedu, Daniel, 'Une chance pour tous et une école de rigueur: la 'formation ouverte et à distance' (FOAD)', ('An opportunity for everyone and a school to be taken seriously: open and distance learning'), *Éducation permanente*, supplément AFPA, 1998, pp. 105–112.
- Belisle, C., Linard, M., 'Quelles nouvelles compétences des acteurs de la formation dans le contexte des TIC?' ('What new skills for trainers in the communication technology context?'), *Éducation permanente*, No 127, 1996.
- Besson, Virginie, 'Les nouvelles technologies réduiront-elles les inégalités?' ('Will new technologies reduce inequality?'), *Éntreprises formation* (magazine for training professionals), No 110, December 1998, pp. 7–9.
- Bernard, Michel, *Penser la mise à distance en formation*, L'Harmattan, 1999 (*Considering distance training*).
- Bitouzet, Christine, Fournier, Philippe, *Management et intranet*, Éditions Benoît Tozenas du Monicel, 1998 (*Management and the intranet*).
- Bloncourt, Isabelle, 'Les industries des carrières et matériaux: en multimédia et à distance' *Entreprise & carrières*, No 394, 1997, pp. 4–5 ('The career and materials industries: multimedia and distance').
- Caspar, Pierre, Bendouba, Amid, Boiteux, Claire, *Nouvelles technologies éducatives et réseaux de formation: des entreprises parlent de leurs expériences, EDF-GDF, France Télécom*, Éditions d'organisations, 1998 (*New educational technologies and training networks: companies discuss their experiences, EDF, GDF, France Télécom*).
- Debret, Dominique, 'Internet, outil pédagogique?' dans *INFFO Flash*, No 501, 1998, pp. 11–14 ('The Internet, an educational tool?').
- Fairise, Anne, 'Formation ouverte et à distance: des entraves à faire sauter', *Entreprise & carrières*, No 463, 1999, pp.4–5 ('Open and distance training: the obstacles to be overcome').
- Ferrat, Daniel, 'Le multimédia au service de la formation' *Liaisons sociales*, No 121, September 1997 ('Multimedia at the service of training').

- 'Formation ouverte et à distance: les six axes de travail de la DGEFP', *INFFO Flash* No 493, 1998 ('Open and distance training: the six working axes in the DGEFP's work').
- Garcia, Marie-Noëlle *et al.*, *Un outil d'optimisation de la formation à distance et du télétravail: Disnet-Step et Internet — Horizon*, Racine, No 39, 1997, pp. 24–27 ('A tool for making the most of distance training and working: Disnet-Step and Internet-Horizon').
- Gérard, Laurent, 'Multimédia: les espérances du groupware', *Entreprise & carrières*, No 469, 1999, pp. 4–5 ('Multimedia: hopes pinned on groupware').
- Guir, R. 'Nouvelles compétences des formateurs et nouvelles technologies' dans *Education permanente*, No 127, 1996 (Trainers' new competences and new technologies).
- Herderle, Rodolphe, Gérard, Laurent, 'Le multimédia inquiète les formateurs', *Entreprises & carrières*, No 379, 1997, pp. 6–7 ('Trainers worried by the mulimedia').
- Herderle, Rodolphe, 'La formation à distance accessible pour un public rural', *Entreprise & carrières*, December 1996, p. 11 ('Distance training accessible to a rural audience').
- Idecam, 'Actes des journées des 8, 9 et 10 juillet 1996: audiovisuel et multimédia appliqués à l'enseignement', Idecam, 1997 ('Reports of the meetings held on 8, 9 and 10 July 1996: audiovisual and the multimedia applied to teaching').
- Jezegou, Annie, *La formation à distance: enjeux, perspectives et limites de l'individualisation*, L'Harmattan, 1998, p. 183 (*Distance training: stakes, prospects and the limits of individualisation*).
- Lefranc, H, '*La téléformation* au secours des zones montagneuses', *Entreprises & carrières*, No 422 from 17–23 February 1998 ('Distance training to the aid of mountainous regions').
- Lehnisch, J. P., *L'enseignemént à distance*, PUF, collection 'Que sais-je?' No 1893, 1981 (*Distance teaching*).
- Leplatre, Françoise (Coordinator). 'Formations ouvertes et à distance — Enjeux et perspectives' (dossiers), *Actualité de la formation permanente*, No 156, October 1998, pp. 37–91 (*Open and distance training — Stakes and prospects.* — dossiers).
- Linard, M., 'Nouvelles technologies et formation' *Sciences humaines*, hors série No 12, 1996 ('New technologies and training').
- Lochard, Jean, *La formation à distance ou la liberté d'apprendre*, Éditions d'organisation, 1995 (*Distance training or the freedom to learn*).
- Luttringer, Jean-Marie, Willens, Jean-Pierre, *Freins réglementaires au développement des formations ouvertes et à distance*, FFFOD, 1998 (*Statutory obstacles to the development of open and distance training*).
- Marot, J. J. C.; Darnige, A., *La téléformation*, PUF, collection 'Que sais-je', 1996 (*Distance training*).
- Meurin, Nicolas, 'Formation à distance: le Nord — Pas-de-Calais mis sur le multimédia', *Entreprise & carrières*, No 448, 1998, p. 7 ('Distance training: the Nord-Pas-de Calais goes multimedia).
- Meyer, Paul 'Comment réussir les formations ouvertes?' dans *Education permanente*, No Supplément AFPA, 1998, pp. 97–104 ('How to achieve success with open training').
- Perriault, Jacques, *La communication du savoir à distance*, L'Harmattan, 1996, p. 256 (*Transmitting knowledge at a distance*).
- Serres, Michel, Authier, Michel, 'Apprendre à distance', *Le monde de l'éducation*, hors série, September 1998 (*Learning at a distance*).

Annex

Skills required of trainers involved in the implementation of on-line training in companies

1. Skills related to the formalisation of the knowledge transmitted:

(a) an ability to formalise in different registers is required:
- stage production and a feel for acting,
- drafting ability,
- knowledge of sound and sound production;

(b) awareness of the technical constraints;
(c) command of educational techniques;
(d) sound knowledge of related disciplines;
(e) flexibility and availability in the use of working time (not overly strict).

2. Skills related to learner support:

(a) an ability to listen and to empathise;
(b) systemic command of content (ability to forget the deductive organisation of knowledge);
(c) sound integration within the professional environment;
(d) excellent general training.

3. Assessment skills:

(a) ability to objectivise data;
(b) ability to question assumptions (experimental approach);
(c) good self-image.

4. Common general skills:

(a) ability to work as part of a team;
(b) an open mind regarding quantification and management approaches.

1

Distance learning schemes for trainers: features of teaching and education

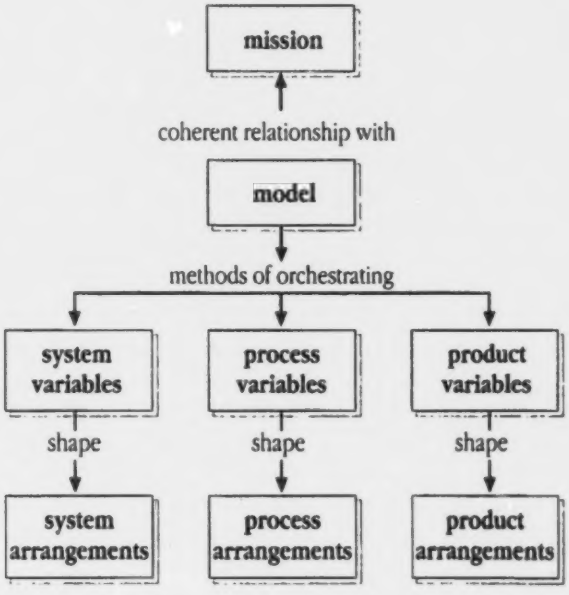
Michele PELLEREY
Università Salesiana di Roma

Contents

1. Introduction
2. The mission of the training programme
3. Choosing a learning model
4. System arrangements
5. Process arrangements
6. Product arrangements
7. Conclusion

Introduction

To allow a thorough and productive analysis of the experiences to be presented, I should like briefly to review some useful reference criteria. These include five indicators of the quality of the education and teaching provided by schemes for distance learning systems for trainers. The reference diagram is as follows:



The mission of the training programme

The first indicator refers to a cluster of variables which relate to the degree of precision and clarity achieved in defining the *training mission* of the programme. These include the information provided by the designer and/or provider of the programme about target audience, purposes, theoretical foundations and methods.

Documentation enabling an overall evaluation of the reliability and credibility of the training on offer is of importance here. It should be possible clearly to identify:

(a) the promoter of the training scheme and those public and/or private agencies financing it;
(b) the person or people responsible for the training programme — both its design and implementation;
(c) the available communication channels (post, telephone, fax, e-mail, Internet site, etc.).

It also needs to be checked whether the target audience for whom the programme is intended has been clearly identified:

(a) characteristics of trainees, for instance occupations held, level of responsibility etc.;
(b) type of knowledge, skills and experience required by candidates for the programme;
(c) other aspects important for decision-making purposes, for instance average time needed to complete the programme, necessary technological resources, etc.

In addition, we need to examine what the programme intends to achieve:

(a) the acquisition of general and strategic skills relating to educational and teaching knowledge;
(b) the development of skills of an operational type, in the area of teaching communication and the organisation of learning;
(c) advanced training of a technological type, in relation to analyses of training needs, design of curricula, production of teaching materials, integrated and convergent use of communication technologies and training evaluation.

There may be reasons of a theoretical, sociocultural, professional or technical and practical nature behind these choices. The problem, or the cluster of problems — what the French call *la problématique* — that the programme is intended to address, and the theory and practice, that have been chosen as a reference framework must nevertheless be evident.

When choosing and/or formulating a distance or open learning model, priority may, for instance, be given to a constructive view of knowledge and skills of a

sociocultural type along the lines of Vygotskian thinking. Alternatively, the preferred arrangement may be one that uses forms of cognitive and practical learning and is centred on models of excellence which employ methods that are initially guided and controlled from outside and then gradually self-regulated. These choices also shape the basic characteristics of the model of learning that underpins the proposed programme.

Choosing a learning model

Every educational model strives towards an ideal. In our case, this is an ideal trainer and ideal training. A model is, moreover, a conceptual scheme with respect to which the various aspects of a training programme can be linked and ordered in relation to a teleological principle that provides it with coherence and consistency. This teleological principle is expressed with varying degrees of clarity by the programme's mission: a mission that is made explicit at various levels.

First is the level of theory, where implicit assertions or assumptions relate to the conception of the professional skills, role and functions of trainers. 'Scientific' references, such as methods of developing various dimensions of the person, the relationships and interactions to be promoted and learning processes and processes of acquisition of the necessary knowledge and skills are a further level. Operating and method principles are a third level. This is a 'practical' level taking account of operational and/or practical methods. It is then possible, for instance, to distinguish between an organisational and teaching model of distance learning and a model of open learning. The first relates generally to a type of personalised training, with no

constraints on place, as trainees can be reached anywhere by post, telephone, multimedia and asynchronous communication at all the stages of transmission-reception-feedback-correction.

In the second model, priority is often given to cooperation and collaboration between teachers and groups, whether real or virtual on the web, using textual and/or oral communication, both asynchronous and pre-recorded and synchronous and on-line.

It is possible to identify five further fundamental components of a training model.

(a) The extent to which the knowledge, skills and attitudes to which reference is made in the training process are structured: At either end of a continuum, these range from a destructured approach based on natural or possibly occasional experiences to an approach that is highly organised from the point of view of both educational situations and their chronological sequence.

(b) Type of training situations: For instance, training may take place collectively; be targeted indifferently on the group of people as a whole and based on direct and one-way communication; or a more interactive situation, focusing on exchanges between the trainer and the group and between group members, may be preferred; or priority may be given to personalised action.

(c) Type and quality of the educational tools and materials used: These include not only the media actually involved, but also the quality of the materials on offer and the methods by which they are used, such as dialogue and oral discussion, one-way written communication, use of multimedia and hypermedia instruments, interactive distance learning, etc.

(d) Type and quality of the planned relationships:
- of an impersonal interactive type and therefore rigidly structured in advance;
- of a personal type with direct contacts between the tutor and participants;
- of a collective type. The communication platform that it is intended to use or to which priority is to be given is undoubtedly a particular feature of the training model.

(e) Methods of assessment: In this case as well, it is possible to distinguish between diagnostic and prescriptive methods, grading methods, forms of skill certification, etc.

The various schemes developed from a model can then be examined in greater detail, taking account of their variables.

System arrangements

These relate to the basic training system used.
Are these schemes to be used and built on in practice to promote cooperation between the distance training system and its users, between these users and their tutor or between users themselves? What forms of communication will take priority: oral (telephone, teleconferencing, videoconferencing), audiovisual (use of videos), hypermedia and interactive (CD-ROMs, on-line connections)?
Is it intended to construct a workshop environment for research and educational training, in which there will be direct and/or virtual experiences, cases to be studied, microworlds to be explored, simulation games to be used or teaching materials to be prepared? In this case, is priority to be given to interdependent communication between the places and actors of training, connected via a permanent technological network, making the most of exchanges of contextualised teaching experiences and research and action?
Or is preference to be given to an individual relationship where the focus is on interaction between the tutor and the trainee, orchestration is by the system supplying the training and there is systematic assessment of progress made through which new educational goals can be set? In this case, how flexible is the system from the point of view of users' previous experience, styles of learning, the time that they have available and the progress that they make over time?

Process arrangements

These include the methods designed and planned to involve participants in the joint construction of the knowledge, skills and attitudes proposed. What learning conditions are to be used so that trainers can and actually want to develop, in cooperation with the system, these skills, knowledge and attitudes in a significant and permanent way that they can then put to use in their own work?

How is the training process organised? Is it one-way, two-way or multidirectional? Is use to be made of approaches that are personalised or of a group type? Is it rigidly pre-arranged or flexible? Is it based on individual or cooperative learning? Is it focusing on cases and real situations or simulations and role playing? Is previous experience that has been acquired and conceptualised to be built on or challenged, or is it to be disregarded?

Is it intended to develop, and is there practical scope for the development of a genuine community of learners bringing together different occupations, activities and services, but likely to promote a climate of cooperation in the joint construction of the desired knowledge, skills and attitudes?

Product arrangements

Two types of variable can be clearly differentiated: those relating to the quality of the teaching materials used and those relating to the results that are achieved in terms of a significant, permanent and productive acquisition of the content of learning.

For the first type of variable, we need to stress that it is not enough merely to look at the three factors traditionally taken into account: the interface used (graphics composition, ease of use, functional nature etc.), contents and how they are organised and teaching method. Account also has to be taken of whether or not the material is actually valid and productive when in use — this can be ascertained only from a systematic observation of trainees' involvement and the learning they acquire.

The second type of variable generally includes:

(a) who assesses the interim and final results achieved by trainees?

(b) what scope is provided for self-assessment and group assessment?

(c) what is assessed, i.e. only knowledge, or skills and attitudes as well?

(d) what assessment methods are used, particularly in

the case of skills that are difficult to observe directly or in the case of attitudes?

(e) why is this kind of assessment being used — so that the pace of learning can be better geared to what has already been learnt or so that the contents and method can be better geared to individuals or the group or so that trainees can be provided with systematic feedback, etc.?

(f) are the knowledge, skills and attitudes actually achieved certified, and what value is attached to this certification?

Conclusion

It is evident from the above that the quality of a training programme depends on a whole range of variables and on the ways in which these variables are combined to form a coherent and well-structured system of training schemes. The validity and efficiency of a distance learning programme for trainers can be better assessed, however, if we take account of more than just the immediate results of the programme, i.e. of what trainees have actually acquired in terms of knowledge, abilities and attitudes. It is just as important, and necessary, to take into account any improvement in the actual work of these trainees.

1

Mentor in cyberspace: developing interactive on-line training and support

Simon WALKER
University of Greenwich

Contents

1. Introduction
2. General information
3. Rationale for the research
4. Findings
5. Project objectives and scope
6. Framework for the design
7. Conclusion
8. Bibliography

Introduction

Emerging trends in information and communication technologies (ICTs), coupled with national government initiatives to use ICT and widen participation in lifelong learning (in the case of the UK the influential Dearing, Higginson and Kennedy reports) have created a framework for supporting an increasing community of participants in education and training. This paper examines how a project for training and supporting mentors of student teachers was undertaken and suggests that an integration of technologies with a balanced approach to learning theory may offer possibilities to the mentor-trainer working in the post-16 vocational education and training (VET) sector.

2

General information

The school of post-compulsory education and training (PCET) at the University of Greenwich trains approximately 250 student teachers each year on its full-time pre-service post-graduate certificate programme (PGCE). The programme lasts for two semesters. Student teachers divide their time between the university and a work placement at a VET institution. These institutions are spread across a wide geographical area in the south and south-east of England. Some of them have 'partner' status and, as well as delivering part of the programme, provide work placements for up to 20 student teachers. Others provide fewer work placements (in some cases a single work placement may be provided) and take no part in academic delivery of the programme.

From the beginning of the first semester, each student is assigned to a subject mentor in the VET institution. The subject mentor may work in a school, a college of further education, a training organisation or a higher education institution, such as a university. Mentors may be either full- or part-time teachers, heads of department or middle managers and generally have a high status in their institution. The common factor is that all mentors work with the post 16 age group.

The role of the PGCE subject mentor is multifaceted, and consists of six broad activities whose main goal is the professional development of the student teacher:

(a) mentors induct the student teacher to the institution through introductions, meetings and observations;
(b) they support, advise and guide the student teacher and monitor their progress;
(c) they liase with the student teacher's personal tutor at the university;
(d) they set up opportunities for the student teacher to teach;
(e) they assess the performance of the student teacher in the workplace over a set period of time;
(f) they help the student teacher to develop 'professional' attitudes in working with other staff and students.

Managers in VET institutions appoint members of staff who they believe will make good subject mentors. The likelihood is that mentors will have had no basic training in this role and therefore little experience to draw upon, besides being a teacher. We consider it crucial to offer mentor training and support.

Rationale for the research

The diversity, location and different types of work placement inhibit the consistency of mentor training across the programme. In many of the partner colleges, either a 'college link' person or a university tutor may deliver training in one-off group workshops or in an individual meeting. The university supports these activities by sending all mentors a handbook. If mentors come from non-partner institutions, the school of PCET offers a single training session in the first semester at the university. The university pays the mentor's institution a small fee for contact time with the student teacher but this does not specifically include payment for time or expenses to attend mentor training sessions. If mentors wish to attend the training session, they usually do so at their own expense. Student teachers, personal tutors and subject mentors have expressed a general sense of dissatisfaction in the level of mentor training and support.

We have identified limitations with the current system of mentor training:

(a) clashes in the timetable between university tutors, link tutors and mentors make it difficult to find a common time for training and support;
(b) it is relatively easy to provide training to a large group of mentors from a single institution but costly and difficult to provide training to single mentors from a number of different institutions in a wide geographical area;
(c) the increasing workload of staff in partner institutions, coupled with changes in their contractual agreements, has meant that attendance at a single mentor training session at the beginning of the first semester, often their busiest time, now features low on their list of priorities;
(d) at the university, tutor hours available for mentor training and support have been consistently reduced.

It became clear that we needed to undertake research to understand the impact of these limitations and discover ways in which we might improve on our ability to train and support workplace mentors.

Findings

In 1996/97 initial research was carried out with 117 student teachers and 10 university tutors. It found that almost half student teachers and nine university tutors considered the mentor to be inadequately prepared by the university for the student/mentor relationship.
These results made it imperative to look at other more flexible and open ways of developing and supporting mentors that would supplement the existing system; such a system would need to be independent of time and location. We took a pragmatic, long-term view that if we were to develop a technological system which used information and communications technology (ICT), we would have to ensure mentors' willingness to use it.
Further research was conducted with 70 new and existing mentors across a range of institutions. It set out to examine their level of knowledge of IT, particularly multimedia, to determine whether they would use digital technology for their own training, and to explore what they considered to be of high priority for mentor training, i.e. what they perceived their needs to be (see Appendices A and B).

Project objectives and scope

Findings from the mentor research indicated that the majority of mentors would use IT, although we identified a number of constraints. Some were institutional, such as limitations of the technical specification of equipment provided by colleges (processor speed, CD-ROM drives, soundcards, the ability to play video, etc.). Others were personal constraints, such as their limited knowledge of IT and their lack of confidence in using a computer.
At the time, we considered ***hybrid*** interactive multimedia (interactive multimedia with on-line links) as the most suitable tool to develop and support mentoring processes, such as thinking about their role, creative responses to supporting student teachers, self-reflection, problem solving and the development of professional attitudes and approaches.
In 1997, with a small amount of internal funding and some Comenius funding, the *Mentor in cyberspace* project was conceived with the goal of supplementing existing mentor training and support. Interactive multimedia on CD-ROM with embedded links to the University of Greenwich's on-line campus (OLC) mentor page was chosen as the most appropriate vehicle for this.

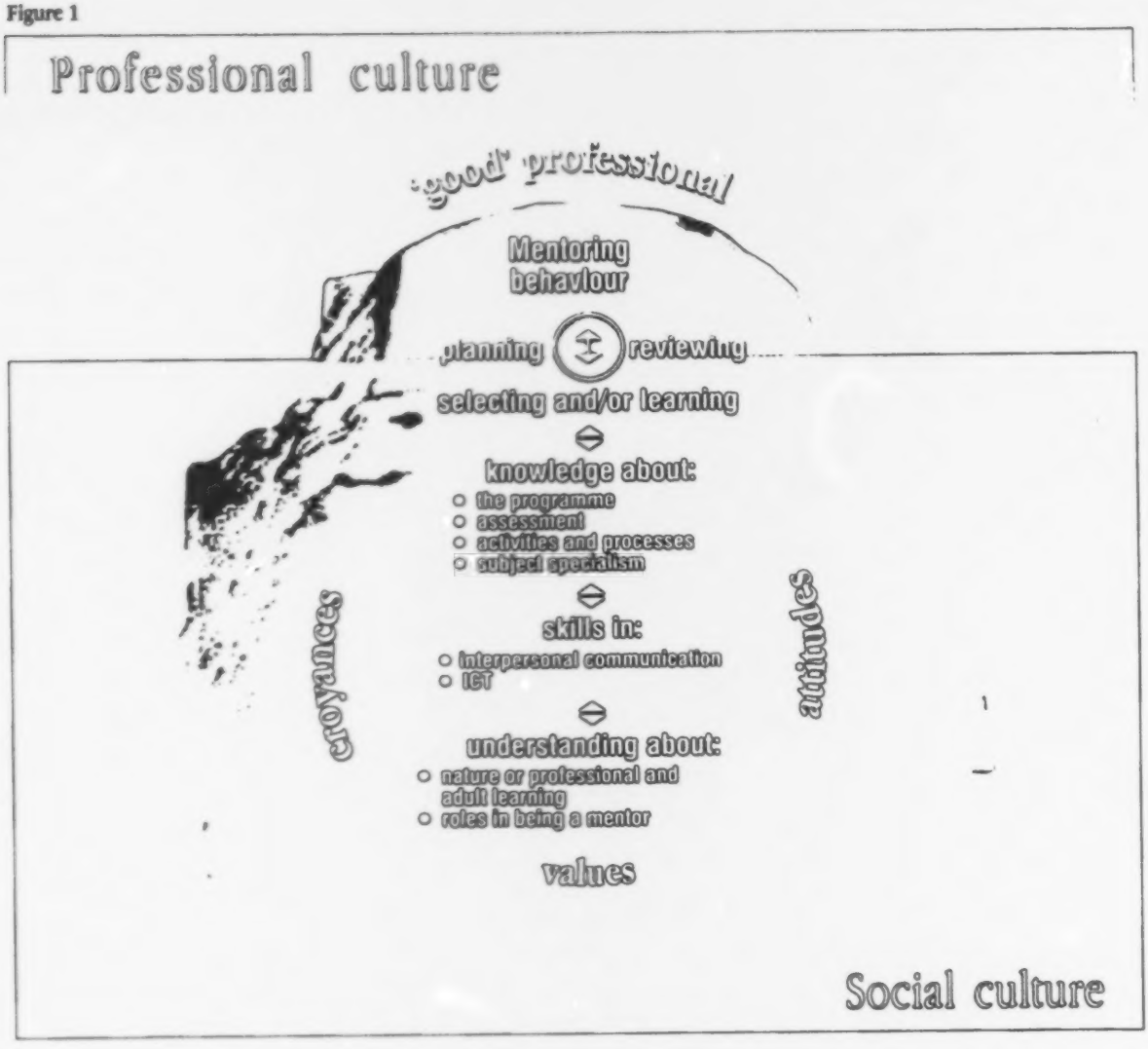
At the start of the project, only a small number of academic institutions which were not universities had developed individual Internet access for their staff. However, we considered the lead-in time for the project to be sufficiently long, so that by the end of the project, mentors would be on-line and able to utilise the range of tools available on the OLC.

Framework for the design

There is no substantial proof to suggest that a trained mentor is more effective than an untrained one (Jowett 1998). However, training does enhance an understanding of the stages of a mentor-mentee relationship, knowledge of the mentoring process, and stimulates critical reflection of professional practice. Malderez and Bodoczky (1998) use the image of an iceberg to represent a model of the mentor. They draw a parallel between the tip, which is in the air and represents the visible 'good professional', and the main body of the iceberg, which lies unseen and represents all that the professional engages in as an expert in their subject and as a mentor. The submerged part represents the mentor's thinking, planning, and engagement in process, which draw upon their understanding, knowledge, skills, beliefs, values and attitudes. I have adapted this model to reflect the increased competence the mentor needs to develop support using ICT. The mentor's ability to respond to the student teacher's professional development hinges not only on the understanding of their role and on their own development as mentors, but also on their ability to use ICT (see Figure 1).

The challenge for designing the training and support of

Figure 1



BEST COPY AVAILABLE

workplace mentors is considered in these three aspects. First, defining and clarifying their role and identifying possible points of conflict (expectations of student teachers, level and type of work involved, method of assessment, etc.); second, calling on mentors to make their experience, knowledge and skills explicit so they can share it with their mentee; and third, building on their competence in using ICT. Jowett (1998) states that more experienced mentors change their ideas and practice in response to their previous experience, creating a need to reflect on practice more deeply. The means of facilitating this development are through discussion and feedback with other interested parties, i.e. other mentors and personal tutors. The development of support networks is a way of sharing experience and good practice.

The design of the interactive tool attempts to develop understanding, draw out experience, support practical activities with resources and enable mentors to discuss their practice with others.

Approaches to learning theory

Boyle (1997) identifies two basic approaches to the design of computer-based learning systems. The first, instructional systems design (ISD), represents a coherent strategy for the design of learning environments. Based upon the work of Skinner and Gagne, it proposes a standard method with three main elements:

(a) before the learner engages with the content, objectives are identified;
(b) appropriate methods and resources are chosen to help the learner achieve the learning objectives;
(c) at the end of learning, the learner's ability to meet the stated objectives are assessed.

The second approach, constructivist design, assumes that learning occurs when the individual learners, through interacting with the world, construct their own personal knowledge. This contemporary learner-centred approach, whereby the learner is engaged in an active process of collaboration and discovery, tends to be favoured above the more traditional teacher-centred approach which appears to take a hypodermic syringe–like transmission of knowledge through the relatively passive acquaintance of facts and rules.

Herrington and Standen (1999) chart a theoretical shift from a behavioural to a constructivist approach that educators have taken to the design of learning technology. In the world of educational technology, computer-aided learning and computer-based training (CAL and CBT), with its roots largely in the

behaviourist tradition, is pitted against modern constructivist theory. The approach taken in the development of *Mentor in cyberspace* has been to try to strike a balance between these two opposing theories. It attempts to combine the strengths of ISD design with its emphasis on presentation, information, structure and reinforcement, with constructivist elements that provide a set of tools and methods for the mentor to construct new knowledge within ill-structured, authentic, real contexts (Brown, J. S., Collins, A., Duguid, P., 1989).

The sections developed on the CD-ROM tend to reflect an instructional systems design (ISD) approach. Content is structured, contains stimuli, and responses to them are reinforced. The content is prescribed but prescribed loosely, allowing room for individual creativity within set boundaries. For example, ideas for an agenda for the first meeting are suggested, but the mentor may choose to respond quite differently and still produce an agenda, which is the main goal for the activity. A range of resources and the results of interactions are designed to enhance the potential for mentors to develop their own understanding and practice.

A more constructivist design approach has been taken by constructing a mentor web page on the university's on-line campus that uses computer-mediated conferencing software (Lotus notes domino). Mentors can access this either through links embedded in the CD-ROM or by inserting the address of a location in their browser in the normal way. The aim is the creation of a mentor community where ideas and practice constantly develop and the capacity to discuss, reflect and receive feedback is an essential part of developing and constructing a personal mentoring practice. The web page provides mentors with opportunities to reflect upon their role and share their ideas, confidentially, through discussion with other mentors and tutors. Lave (1991) regards the processes of dialogue, shared interest, participation and collaboration as essential elements for this construction of knowledge.

Results of initial iterative evaluation

The first prototype was evaluated through semi-structured interviews and by videoing a small sample of mentors interacting with it. The results prompted considerable refinement in the design approach taken. The initial design had been largely based on a 'hunt and find' approach; one predominantly used in the design of children's interactive multimedia. Adult mentors in the sample tended to shy away from screen

'furniture' that shuffled, moved or screeched. They were confident in working with text and took their time to read, reflect and ponder. They requested clear navigational signals to facilitate orientation. They felt at ease with the design metaphor of a book, and found the visual metaphors used (Homer's Odyssey, instruments of time measurement, marine navigational tools, etc.,) appropriate.

Some mentors stated how stressful and busy their lives were and, rather than exploring the issues for themselves, preferred to be 'told what to do'. These comments were highly influential in forming the current design.

An analysis of the mentor role, which originally identified nine separate sections, was condensed into five sections. These sections are:

(a) the role of the mentor;
(b) first meetings;
(c) preparing your mentee to teach;
(d) identifying development needs;
(e) assessing teaching.

Additional resources to assist navigation such as a help screen, backtrack button and a time device, which help mentors identify what they should do at certain points in the year, were also developed.

Conclusion

Fifteen mentors took part in a year-long pilot study which attempted to measure the success of introducing interactive multimedia to supplement the training of mentors in the VET sector.

The particular focus of research examined whether:

(a) the choice and design of hybrid interactive multimedia, with the integration of an on-line campus containing dedicated sites for mentors, supports and enhances mentors' understanding and performance of their role;
(b) the design and content of the system may have transferability potential with workplace mentors in other sectors.

Bibliography

- Dearing, *National inquiry into higher education.* HMSO, 1997.
- FEFC *Report of the FEFC Learning and Technology Committee* (the Higginson report), Further Education Funding Council, 1996.
- Kennedy, H., *Learning works: widening participation in further education*, Coventry, FEFC, 1997.
- Jowett, V., *Working for a degree — a mentoring project in work-based learning. Facets of mentoring in higher education 2.* SEDA paper 103, 1998, pp. 19–34.
- Malderez, A., *Addressing tensions in the mentoring relationship — interpersonal skills training. Facets of mentoring in higher education 2.* SEDA paper 103, 1998, pp. 49–57.
- Herrington and Standen, *Moving from an instructivist to a constructivist multimedia learning environment*, Ed Media '99 Proceedings. Seattle, USA 99 AACE Virginia, 1999.
- Boyle T., *Design for multimedia learning.* Prentice Hall, 1997.
- Brown, J. S., Collins, A.; Duguid, P., *Situated cognition and the culture of learning.* Educational Researcher, 1989, 18(1), pp. 32–42.
- Lave, J., 'Situating learning in communities of practice', in Resnick, L. B., Levine, J., Teasley, S. (eds.), *Perspectives on socially shared cognition* (pp. 63–82). Washington, D.C., American Psychological Association, 1991.

Open and distance learning and the professionalisation of trainers

The TTnet dossiers are intended to ensure that the outcomes of the various projects conducted by the TTnet are available to the different players in the field of the training of trainers: policy-makers, research and documentation centres, and trainers' professional bodies, thereby contributing to the Community debate about the training of trainers.

Dossier No 4 presents the results of a thematic workshop on 'open and distance learning and enhancing the professional skills and qualifications of trainers' bringing together a number of thematic contributions designed to place the question in context from several different angles: the typologies of training using ICTs and their impact on trainers' competences; the key questions for trainers in the Community context leading to common work priorities.

The outcome of those discussions should be considered as the starting point for the more in-depth work on the same theme that will be conducted by the TTnet network during 2001–02 in a collaborative effort with the Commission as part of the *e*Learning initiative.

Cedefop
European Centre for the Development
of Vocational Training

TTnet Dossier No 4
Open and distance learning
and the professionalisation of trainers

Mara Brugia
Françoise Gérard
Michel Tétart
Luciano Battezzati
Jeanne Mallet
Michele Pellerey
Simon Walker

Luxembourg:
Office for Official Publications of the European Communities
2001 — VI, 70 pp. — 21 x 21 cm
(Cedefop Reference series; 21 — ISSN 1608-7089)
ISBN 92-896-0055-1
Price (excluding VAT) in Luxembourg: EUR 8.50
Publication No: 3017 EN

77

Venta • Salg • Verkauf • Πωλήσεις • Sales • Vente • Vendita • Verkoop • Venda • Myynti • Försäljning
http://eur-op.eu.int/general/en/s-ed.htm

BELGIQUE/BELGIË

Jean De Lannoy
Avenue du Roi 202/Koningslaan 202
B-1190 Bruxelles/Brussel
Tél. (32-2) 538 43 08
Fax (32-2) 538 08 41
E-mail: jean.de.lannoy@infoboard.be
URL: http://www.jean-de-lannoy.be

La Librairie européenne/
De Europese Boekhandel
Rue de la Loi 244/Wetstraat 244
B-1040 Bruxelles/Brussel
Tél. (32-2) 295 26 39
Fax (32-2) 735 08 60
E-mail: mail@libeurop.be
URL: http://www.libeurop.be

Moniteur belge/Belgisch Staatsblad
Rue de Louvain 40-42/Leuvenseweg 40-42
B-1000 Bruxelles/Brussel
Tél. (32-2) 552 22 11
Fax (32-2) 511 01 84
E-mail: ousatte@just.fgov.be

DANMARK

J. H. Schultz Information A/S
Herstedvang 12
DK-2620 Albertslund
Tlf. (45) 43 63 23 00
Fax (45) 43 63 19 69
E-mail: schultz@schultz.dk
URL: http://www.schultz.dk

DEUTSCHLAND

Bundesanzeiger Verlag GmbH
Vertriebsabteilung
Amsterdamer Straße 192
D-50735 Köln
Tel. (49-221) 97 66 80
Fax (49-221) 97 66 82 78
E-Mail: vertrieb@bundesanzeiger.de
URL: http://www.bundesanzeiger.de

ΕΛΛΑΔΑ/GREECE

G. C. Eleftheroudakis SA
International Bookstore
Panepistimiou 17
GR-10564 Athina
Tel. (30-1) 331 41 80/1/2/3/4/5
Fax (30-1) 322 98 21
E-mail: elebooks@netor.gr
URL: elebooks@hellasnet.gr

ESPAÑA

Boletín Oficial del Estado
Trafalgar, 27
E-28071 Madrid
Tel. (34) 915 38 21 11 (libros)
913 84 17 15 (suscripción)
Fax (34) 915 38 21 21 (libros),
913 84 17 14 (suscripción)
E-mail: clientes@com.boe.es
URL: http://www.boe.es

Mundi Prensa Libros, SA
Castelló, 37
E-28001 Madrid
Tel. (34) 914 36 37 00
Fax (34) 915 75 39 98
E-mail: libreria@mundiprensa.es
URL: http://www.mundiprensa.com

FRANCE

Journal officiel
Service des publications des CE
26, rue Desaix
F-75727 Paris Cedex 15
Tél. (33) 140 58 77 31
Fax (33) 140 58 77 00
E-mail: europublications@journal-officiel.gouv.fr
URL: http://www.journal-officiel.gouv.fr

IRELAND

Alan Hanna's Bookshop
270 Lower Rathmines Road
Dublin 6
Tel. (353-1) 496 73 98
Fax (353-1) 496 02 28
E-mail: hannas@iol.ie

ITALIA

Licosa SpA
Via Duca di Calabria, 1/1
Casella postale 552
I-50125 Firenze
Tel. (39) 055 64 83 1
Fax (39) 055 64 12 57
E-mail: licosa@licosa.com
URL: http://www.licosa.com

LUXEMBOURG

Messageries du livre SARL
5, rue Raiffeisen
L-2411 Luxembourg
Tél. (352) 40 10 20
Fax (352) 49 06 61
E-mail: mail@mdl.lu
URL: http://www.mdl.lu

NEDERLAND

SDU Servicecentrum Uitgevers
Christoffel Plantijnstraat 2
Postbus 20014
2500 EA Den Haag
Tel. (31-70) 378 98 80
Fax (31-70) 378 97 83
E-mail: sdu@sdu.nl
URL: http://www.sdu.nl

ÖSTERREICH

Manz'sche Verlags- und
Universitätsbuchhandlung GmbH
Kohlmarkt 16
A-1014 Wien
Tel. (43-1) 53 16 11 00
Fax (43-1) 53 16 11 67
E-Mail: manz@schwinge.at
URL: http://www.manz.at

PORTUGAL

Distribuidora de Livros Bertrand Ld.ª
Grupo Bertrand, SA
Rua das Terras dos Vales, 4-A
Apartado 60037
P-2700 Amadora
Tel. (351) 214 95 87 87
Fax (351) 214 96 02 55
E-mail: dlb@ip.pt

Imprensa Nacional-Casa da Moeda, SA
Sector de Publicações Oficiais
Rua de Escola Politécnica, 135
P-1250-100 Lisboa Codex
Tel. (351) 213 94 57 00
Fax (351) 213 94 57 50
E-mail: spoco@incm.pt
URL: http://www.incm.pt

SUOMI/FINLAND

Akateeminen Kirjakauppa/
Akademiska Bokhandeln
Keskuskatu 1/Centralgatan 1
PL/PB 128
FIN-00101 Helsinki/Helsingfors
P./Fax (358-9) 121 44 18
F./Fax (358-9) 121 44 35
Sähköposti: sps@akateeminen.com
URL: http://www.akateeminen.com

SVERIGE

BTJ AB
Traktorvägen 11-13
S-221 82 Lund
Tfn. (46-46) 18 00 00
Fax (46-46) 30 79 47
E-post: btjeu-pub@btj.se
URL: http://www.btj.se

UNITED KINGDOM

The Stationery Office Ltd
Customer Services
PO Box 29
Norwich NR3 1GN
Tel. (44) 870 60 05-522
Fax (44) 870 60 05-533
E-mail: book.orders@theso.co.uk
URL: http://www.itsofficial.net

ÍSLAND

Bokabud Larusar Blöndal
Skólavördustíg, 2
IS-101 Reykjavík
Tel. (354) 552 55 40
Fax (354) 562 85 80
E-mail: bokabud@simnet.is

NORGE

Swets Blackwell AS
Osterhausveien 18
Boks 6512 Etterstad
N-0606 Oslo
Tel. (47) 22 97 45 00
Fax (47) 22 97 45 45
E-mail: info@no.swetsblackwell.com

SCHWEIZ/SUISSE/SVIZZERA

Euro Info Center Schweiz
c/o OSEC
Stampfenbachstraße 85
PF 492
CH-8035 Zürich
Tel. (41-1) 365 53 15
Fax (41-1) 365 54 11
E-mail: eics@osec.ch
URL: http://www.osec.ch/eics

BĂLGARIJA

Europress Euromedia Ltd
59, blvd Vitosha
BG-1000 Sofia
Tel. (359-2) 980 37 66
Fax (359-2) 980 42 30
E-mail: Milena@mbox.cit.bg
URL: http://www.europress.bg

ČESKÁ REPUBLIKA

ÚVIS
odd. Publikací
Havelkova 22
CZ-130 00 Praha 3
Tel. (420-2) 22 72 07 34
Fax (420-2) 22 71 57 38
URL: http://www.uvis.cz

CYPRUS

Cyprus Chamber of Commerce and Industry
PO Box 21455
CY-1509 Nicosia
Tel. (357-2) 66 95 12
Fax (357-2) 66 10 44
E-mail: demetrap@ccci.org.cy

EESTI

Eesti Kaubandus-Tööstuskoda
(Estonian Chamber of Commerce and Industry)
Toom-Kooli 17
EE-10130 Tallinn
Tel. (372) 646 02 44
Fax (372) 646 02 45
E-mail: einfo@ecda.ee
URL: http://www.ecda.ee

HRVATSKA

Mediatrade Ltd
Pavla Hatza 1
HR-10000 Zagreb
Tel. (385-1) 481 94 11
Fax (385-1) 481 94 11

MAGYARORSZÁG

Euro Info Service
Európa Ház
Pf. 1039
H-1137 Budapest
Tel. (36-1) 329 21 70
Fax (36-1) 349 20 53
E-mail: euroinfo@euroinfo.hu
URL: http://www.euroinfo.hu

MALTA

Miller Distributors Ltd
Malta International Airport
PO Box 25
Luqa LQA 05
Tel. (356) 66 44 88
Fax (356) 67 67 99
E-mail: gwirth@usa.net

POLSKA

Ars Polona
Krakowskie Przedmieście 7
Skr. pocztowa 1001
PL-00-950 Warszawa
Tel. (48-22) 826 12 01
Fax (48-22) 826 62 40
E-mail: books119@arspolona.com.pl

ROMÂNIA

Euromedia
Str. Dionisie Lupu nr. 66, sector 1
RO-70184 Bucureşti
Tel. (40-1) 315 44 03
Fax (40-1) 312 96 46
E-mail: euromedia@mailcity.com

SLOVAKIA

Centrum VTI SR
Nám. Slobody, 19
SK-81223 Bratislava
Tel. (421-7) 54 41 83 64
Fax (421-7) 54 41 83 64
E-mail: europ@tbb1.sltk.stuba.sk
URL: http://www.sltk.stuba.sk

SLOVENIJA

Gospodarski Vestnik
Dunajska cesta 5
SLO-1000 Ljubljana
Tel. (386) 613 09 16 40
Fax (386) 613 09 16 45
E-mail: europ@gvestnik.si
URL: http://www.gvestnik.si

TÜRKIYE

Dünya Infotel AS
100, Yıl Mahallesi 34440
TR-80050 Bagcilar-Istanbul
Tel. (90-212) 629 46 89
Fax (90-212) 629 46 27
E-mail: Infotel@dunya-gazete.com.tr

ARGENTINA

World Publications SA
Av. Cordoba 1877
C1120 AAA Buenos Aires
Tel. (54-11) 48 15 81 56
Fax (54-11) 48 15 81 56
E-mail: wpbooks@infovia.com.ar
URL: http://www.wpbooks.com.ar

AUSTRALIA

Hunter Publications
PO Box 404
Abbotsford, Victoria 3067
Tel. (61-3) 94 17 53 61
Fax (61-3) 94 19 71 54
E-mail: jpdavies@ozemail.com.au

BRESIL

Livraria Camões
Rua Bittencourt da Silva, 12 C
CEP
20043-900 Rio de Janeiro
Tel. (55-21) 262 47 76
Fax (55-21) 262 47 76
E-mail: livraria.camoes@incm.com.br
URL: http://www.incm.com.br

CANADA

Les éditions La Liberté Inc.
3020, chemin Sainte-Foy
Sainte-Foy, Québec G1X 3V6
Tel. (1-418) 658 37 63
Fax (1-800) 567 54 49
E-mail: liberte@mediom.qc.ca

Renouf Publishing Co. Ltd
5369 Chemin Canotek Road, Unit 1
Ottawa, Ontario K1J 9J3
Tel. (1-613) 745 26 65
Fax (1-613) 745 76 60
E-mail: order.dept@renoufbooks.com
URL: http://www.renoufbooks.com

EGYPT

The Middle East Observer
41 Sherif Street
Cairo
Tel. (20-2) 392 69 19
Fax (20-2) 393 97 32
E-mail: inquiry@meobserver.com
URL: http://www.meobserver.com.eg

INDIA

EBIC India
3rd Floor, Y. B. Chavan Centre
Gen. J. Bhosale Marg.
Mumbai 400 021
Tel. (91-22) 282 60 64
Fax (91-22) 285 45 64
E-mail: ebicind@vsnl.com
URL: http://www.ebicindia.com

JAPAN

PSI-Japan
Kanto Sanbancho Plaza #206
1-1 Sanbancho, Chiyoda-ku
Tokyo 102
Tel. (81-3) 32 34 69 21
Fax (81-3) 32 34 69 15
E-mail: books@psi-japan.co.jp
URL: http://www.psi-japan.co.jp

MALAYSIA

EBIC Malaysia
Suite 45.02, Level 45
Plaza MBf (Letter Box 45)
8 Jalan Yap Kwan Seng
50450 Kuala Lumpur
Tel. (60-3) 21 62 92 98
Fax (60-3) 21 62 61 98
E-mail: ebic@tm.net.my

MÉXICO

Mundi Prensa México, SA de CV
Río Pánuco, 141
Colonia Cuauhtémoc
MX-06500 México, DF
Tel. (52-5) 533 56 58
Fax (52-5) 514 67 99
E-mail: 101545.2361@compuserve.com

PHILIPPINES

EBIC Philippines
19th Floor, PS Bank Tower
Sen. Gil J. Puyat Ave. cor. Tindalo St.
Makati City
Metro Manila
Tel. (63-2) 759 66 80
Fax (63-2) 759 66 90
E-mail: ecpcom@globe.com.ph
URL: http://www.ecp.com

SOUTH AFRICA

Eurochamber of Commerce in South Africa
PO Box 781738
2146 Sandton
Tel. (27-11) 884 39 52
Fax (27-11) 883 55 73
E-mail: info@eurochamber.co.za

SOUTH KOREA

The European Union Chamber of
Commerce in Korea
5th Fl, The Shilla Hotel
202, Jangchung-dong 2 Ga, Chung-ku
Seoul 100-392
Tel. (82-2) 22 53-5631/4
Fax (82-2) 22 53-5635/6
E-mail: eucck@eucck.org
URL: http://www.eucck.org

SRI LANKA

EBIC Sri Lanka
Trans Asia Hotel
115 Sir Chittampalam
A. Gardiner Mawatha
Colombo 2
Tel. (94-1) 074 71 80 78
Fax (94-1) 44 87 79
E-mail: ebicsl@sltnet.lk

UNITED STATES OF AMERICA

Bernan Associates
4611-F Assembly Drive
Lanham MD 20706-4391
Tel. (1-800) 274 44 47 (toll free telephone)
Fax (1-800) 865 34 09 (toll free fax)
E-mail: query@bernan.com
URL: http://www.bernan.com

ANDERE LÄNDER/OTHER COUNTRIES/ AUTRES PAYS

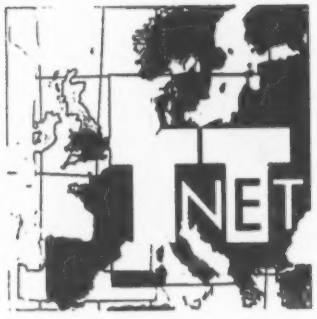
Bitte wenden Sie sich an ein Büro Ihrer Wahl/Please contact the sales office of your choice/Veuillez vous adresser au bureau de vente de votre choix

Office for Official Publications of the European Communities
2, rue Mercier
L-2985 Luxembourg
Tel. (352) 29 29-42455
Fax (352) 29 29-42758
E-mail: info-info-opoce@cec.eu.int
URL: http://eur-op.eu.int

1/0001

BEST COPY AVAILABLE

3-03-01-407-EN-C 15 05 94



CEDEFOP
European Centre for the Development of Vocational Training

Europe 123, GR-57001 Thessaloniki (Pylea)
Postal address:
PO Box 22427, GR-55102 Thessaloniki
Tel. (30) 310 490 111 Fax (30) 310 490 020
E-mail: info@cedefop.eu.int
Homepage: www.cedefop.eu.int
Interactive website: www.trainingvillage.gr

Price (excluding VAT) in Luxembourg: EUR 8.50

3017 EN

OFFICE FOR OFFICIAL PUBLICATIONS
OF THE EUROPEAN COMMUNITIES

L-2985 Luxembourg

ISBN 92-896-0055-1

9 789289 600552 >